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ORIGINAL ARTICLES.

RECURRENT LARYNGITIS AND OBSTRUCTION OF THE NARES, OR ORDINARY CATARRH.[1]

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By the term "recurrent laryngitis" I have designated a common form of chronic catarrhal inflammation of the larynx, which, because of its clinical history, etiology, and treatment, merits special attention. This is not a distinct affection, and what I have to say of it is not entirely new; but many facts regarding it have been so generally overlooked by authors that I feel confident they will be of interest to this Society. The affection is characterized by frequent recurrence of irritation of the larynx, with hacking or hemming cough, and more or less complete aphonia; interspersed with longer or shorter periods of perfect health, or of such slight impairment that the function of the larynx is perfectly performed for all ordinary use of the voice.

The affection is usually associated with chronic pharyngitis, and in a large majority of cases with considerable obstruction of the nares, which I believe stands in a causative relation to both the pharyngeal and laryngeal disease. It is more frequently met with along the seaboard and on the borders of our great lakes than in inland localities. In the cities located on our lakes it affects more frequently those who live within a few blocks of the shore than those half a mile distant; however, no locality is entirely exempt, and frequently the affection is observed in the most unexpected quarters, where the temperature and humidity of the atmosphere are free from the sudden changes which occur near large bodies of water. This fact is of importance as one of the proofs of the theory which I hold regarding the etiology of the affection.

Most frequently patients are troubled during the fall and winter months, though the changeable weather of spring is quite likely to excite a subacute or chronic inflammation; which, however, may be relieved by the warm days of summer, and is therefore less persistent than similar attacks during cold weather.

I have observed the affection most frequently in patients between the ages of 18 and 50 years; and am led to believe that it is not very common before or after these ages. Among those who use the voice considerably in speaking or singing, the affection is more frequently observed than in others; but this may be partially due to their noticing imperfectious in the vocal organ more than those who only use it for ordinary conversation. Men seem more subject to the disease than women, which may be readily explained by the greater exposure in the former, and especially by the common habit of smoking, which is so obnoxious to sensitive mucous membranes.

Patients suffering from recurrent laryngitis are usually found to be also affected with coryza and pharyngitis.

Examination of the larynx will show the epiglottis and arytenoids moderately congested, and the vocal cords of a light pink color. Sometimes the congestion is confined to the edges of the cords only; sometimes to the anterior or posterior extremities; sometimes it is uniform, and in other cases only small patches and enlarged vessels can be seen. Occasionally the cords are quite red, in which case they are usually considerably thickened and partially hidden by little masses of mucus adhering to their surface. In cases in which the vocal cords are only pink in color, they are seldom thickened to any considerable extent; but upon phonation their edges seem less tense than natural, and often a chink, from one to two millimetres in width, will remain between them even in sounding a high pitched "A."

Frequently we will observe, running from the vocal processes backwards and upwards upon the arytenoid cartilages, small triangular spots from three to six millimetres in width, and five to eight in altitude, in which the color is yellowish or yellowish white. These spots have the appearance of superficial ulcers, but are usually only patches of atrophied mucous membrane similar to that which is often seen over the cartilaginous septum in chronic rhinitis. In some cases the inter-arytenoid fold of mucous membrane has a slightly granular appearance, and is of a light color, suggestive of superficial ulceration; but true ulceration is uncommon. In patients whose vitality is low ulceration may actually take place in either of these places. Usually there is little, if any, thickening of other portions of the larynx than the vocal cords.

The posterior pharyngeal wall is usually studded with several enlarged follicles, as in simple chronic follicular pharyngitis; and in the great majority of cases it will be found that there is bending with thickening of the septum narium; or swelling and

[1] Read before the Illinois State Medical Society, on May 20, 1885.

hypertrophy of the turbinated bodies on one or both sides.

A rhinoscopic examination of the naso-pharynx will reveal usually a relaxed and swollen condition of its mucous membrane; and often submucous thickening, giving rise to grayish projections from the sides of the vomer near its posterior edge. This thickening is sometimes sufficient to nearly occlude the posterior part of the nasal cavity. Often the posterior ends of the inferior, and sometimes of the middle turbinated bodies are so swollen as to greatly restrict the size of the choanæ.

Etiology.—Most patients have no well-defined idea of the cause of the trouble, but experience has shown that usually either hereditary influences, changeable climate or syphilis predispose to the affection, while a great variety of conditions may excite the attack. The exciting cause is sometimes found in the overuse of the voice, as in shouting, speaking or singing, particularly in damp, chilly air. Sometimes an ordinary cold taken by any of the usual methods, and added to from time to time, will terminate in laryngitis, which will speedily recur upon slight exposure. The use of alcoholic stimulants frequently causes the disease, and among men smoking tobacco, and apparently chewing, keeps the mucous membrane in an irritable condition, which favors inflammation, or retards recovery.

Pathology.—In nearly all of these cases it will be found that there is some permanent obstruction in the nares, such as a deflected or thickened septum, or swelling or hypertrophy of the turbinated bodies, which is responsible for the continuance of the disease. In some, mucous polypi exist, and in others rhinoliths or foreign bodies; the effect being the same whatever the character of the obstruction.

The obstruction interferes with the free passage of air through the nose, and thus with each inspiration causes rarefication of the air in the posterior nares; this causes congestion and finally inflammation of the mucous membranes, which gradually extend towards the larynx. At the same time, from inability to breathe freely through the nose, the patient, particularly when asleep, breathes through the mouth, causing dryness, irritation, and finally inflammation of the pharynx and larynx, which may be aggravated, or maintained, by any of the causes already mentioned.

As objections to the theory that obstruction of the nares causes nearly all the cases of recurrent laryngitis, it may be claimed that when the obstruction is due to temporary swelling the inflammation should disappear at once when the swelling subsides, and that when due to permanent obstruction it would never disappear while the obstruction continued. In answering the first of these objections, I may state that the laryngitis does speedily disappear, time after time, with the subsidence of the swelling, but that finally the membrane becomes so changed by frequent inflammation that it is difficult for nature to restore the healthy processes promptly, or to maintain them when restored even against slight irritation. The second is answered by the statement that there is a constant variation in the permeability of the nares, even when obstructed by large mucous polypi, or a greatly distorted or thickened septum. These variations, which result from disturbance of the vaso-motor nerves, are due mainly to the condition of the atmosphere; the mucous membrane being swollen and the nasal cavities consequently small in damp or chilly weather, and the reverse in the opposite condition of the atmosphere. Therefore, during the dryer portions of the year, the nares are frequently sufficiently patulous, notwithstanding the obstruction, to allow free nasal respiration.

Clinical History.—The symptoms of recurrent laryngitis are like those that mark the course of chronic laryngitis of a mild type, such as hoarseness, tickling in the throat, hacking cough, and expectoration at times of pellets of mucus; with sometimes short spasms of the larynx, due probably to the irritation of dried secretions becoming detached and lodging in the glottis.

The hoarseness is not constant, though it is generally apparent if the patient attempts to sing. Any of these symptoms may be absent. These symptoms are present in greater or less degree with each recurring attack, and they tend to gradually increase in severity until finally they become permanent, as the disease merges into persistent chronic laryngitis.

Usually, the history of such a case will extend over several years, and almost invariably the patient will state that he has been troubled with catarrh for two or more years preceding the exposure or indiscretion which excited the laryngeal inflammation. And he has generally experienced several similar attacks of from two to four weeks' duration before the fear that the disease may extend to the lungs, prompts him to seek advice. Usually no constitutional symptoms attend the affection, though if it passes into chronic laryngitis grave symptoms may be developed, which are due to fatigue and loss of rest caused by the cough.

Diagnosis.—The history of the case and the discovery of the congestion of the larynx already mentioned, with the appearance of the pharynx and nares, renders the diagnosis certain when pulmonary and cardiac disease have been excluded.

Prognosis.—The tendency of these cases is to grow worse for two, three, or four years, the larynx becoming more and more sensitive, so that it is affected more easily by slight causes, and the inflammation remains longer and longer with each attack, until finally what I have termed recurrent laryngitis terminates in persistent chronic inflammation which is difficult to eradicate. But in some cases the patient learns so well the exciting causes of cold that, by the greatest care, he avoids many attacks, and finally recovery may take place, atlhough the singing voice is likely to be ruined. This so-called recovery is particularly likely to take place when the inflammation of the larynx is due to hypertrophy of the nasal mucous membrane; a condition which tends after a few years to terminate in atrophy, when the nasal cavities again become free; and unless the structure of the laryngeal mucous membrane has been too much altered by repeated inflammation, the laryngitis will subside. Unfortunately, however, even in these

cases, atrophy of the nasal tissue may go on to such an extent as to destroy the proper warming function of the nasal chambers, and thus the pharyngeal, and following it the laryngeal inflammation is likely to again recur, and to remain permanent.

There is a belief among many that this affection tends to terminate in consumption, but although I am well aware that it occasionally precedes this disease, I do not think it stands in a causative relation to it. From my observation and reading I conclude that a large proportion of cases of recurrent laryngitis will, if imperfectly treated, result in chronic laryngitis; a limited number will perfectly recover; some will recover for a time, to eventually terminate in a more obstinate affection; and a small number will materially shorten life.

Treatment.—The treatment, to be effective, must be varied according to the cause of the disease. In cases in which the affection occurs in a person predisposed to inflammation of the mucous surfaces, and in which there is no obstruction in the upper air passages to account for it, we adopt the ordinary treatment recommended for chronic laryngitis, *i. e.*, local applications of astringents and stimulants, together with proper attention to any constitutional symptoms. We must make every effort to ascertain the true cause of the frequent colds from which these patients suffer, and they must be advised accordingly.

During the height of the attack, I prefer applications of the sulphate or chloride of zinc, in strength varying from gr. 2 to 30 in f℥i, according to the effect, the weaker solutions during the height of the affection, and the strong ones later on. These are made with the atomizer, if possible, but in a large number of cases, the patient cannot hold the throat in position long enough to permit of a thorough application; and then either a brush or a pledget of cotton must be employed. I prefer the latter for most cases. After the inflammation has subsided, I direct the patient to continue the use of the mild stimulating spray two or three times a day for many months, in order to toughen the membrane so that it may not be so easily affected by exposure. For this purpose I usually recommend a solution of sulphate of zinc in water, 2 or 3 grains to the ounce. This should be used for three or four weeks, and then substituted by some similar remedy, as ferric alum or chloride of zinc, for about the same time; after which the original spray may be again employed. Frequently I combine with these solutions small quantities of carbolic acid, for its sedative effect, and often I add to them the distilled extract of hamamelis, eucalyptol or Listerine. At the same time, owing to the pharyngeal trouble, troches of krameria, or Hancock's compound troches of krameria, or benzoic acid may be beneficially employed four or five times a day. By this process, eventually, nearly all these cases will be cured, if the patient is faithful in the use of his home remedies.

The vapor inhalations which were much in vogue a few years ago are not generally beneficial, except during the first few days of the attack; on the contrary, they are often hurtful by reason of the increased tendency to inflammation induced by the frequent applications of warmth and moisture. As a matter of course the patient must not use the voice when hoarse, and he must be careful in recommencing its use after a period of rest.

The condition of the digestive and secretory organs must be carefully attended to in all these cases, and the rheumatic, gouty, syphilitic, or dartrous diathesis, if present, must receive proper consideration.

In a considerable number of cases, the inflammation is caused and maintained by the use of tobacco. I have found the condition most frequently among smokers, though I believe that chewing is almost as injurious in some individuals. In such cases, tobacco must be discontinued before we can hope for a complete cure.

Mechanical Obstructions.—In most cases, obstruction in the naso-pharynx or nares will be found to exist, and then no remedies are likely to be of much service until the obstruction has been removed. Among the causes of obstruction are: foreign bodies; naso-pharyngeal growths; nasal polypi; deflection of the septum with thickening, and swelling with hypertrophy of the turbinated bodies.

When hypertrophy of the palatine tonsil is sufficient to interfere with nasal respiration, the gland must be removed. This may be done with chemical escharotics, the galvano-cautery, or with the curette or cutting forceps. Of these methods, the only one I can recommend is the last mentioned. The action of chemical escharotics cannot be well controlled in this locality, and they cause great pain. Removal by the galvano-cautery is painful and tedious. Removal by the curette is more difficult and is likely to be less thorough than by the forceps. The cutting forceps of Löwenberg, or some modification of it, I have found most satisfactory. Usually from three to five applications of the forceps will be necessary, and each will cause considerable pain; therefore it is best to anæsthetize the part with hydrochlorate of cocaine, or in children to produce general anæsthesia. In the latter case, the child is placed on its abdomen, with head drawn over the edge of the table, and the mouth kept open by a suitable gag. The operator sits on a low stool in front and directs his forceps with the forefinger of the left hand, taking special care not to sieze the projecting end of the Eustachian tube.

Polypoid growths springing from the vault of the pharynx, or from the choanæ, may be best removed with the galvano-cautery or steel-wire écraseur; the latter being far preferable in the majority of cases. If the tumor is not large, it may generally be most easily secured by passing the same through the nares, the rhinoscopic mirror being employed to see when the wire is in proper position.

If the tumor be large, a catheter is passed through the nares and the end of it brought out at the mouth. The ends of a wire about three feet long are then passed into the mouth through the catheter, and brought out at the nostril. The catheter is then withdrawn, the ends of the wire slipped through the tube of the écraseur, and the loop drawn back into the mouth and carried up behind the tumor; after which the wire is fastened to the instrument and

the tumor is gradually cut off. In carrying the loop up behind a large tumor, the operation may be greatly facilitated by using my snare applicator.[1]

Mucous Polypi.—Nasal polypi may be removed by various methods, the principal ones being by the forceps, the galvano-cautery or steel wire écraseur. I much prefer the last. Whichever plan of operating is adopted, it should be done under a strong light thrown into the nares from a concave reflector.

The écraseur causes much less pain than the forceps, and with it we do not remove the turbinated bodies, as frequently happens when forceps are employed. After the polypi have been removed, the spots from which they have grown will sometimes need to be cauterized, preferably with the galvano-cautery or chromic acid.

Deflected or Thickened Septum.—When the trouble depends upon a deflected septum, with more or less thickening, the bend must be straightened and the redundant tissue removed. In nearly all cases of bending of the septum there is a considerable outgrowth from its bony or cartilagenous portion which is generally found on the convex side; and in most cases the inferior turbinated body on the other side is hypertrophied. The projecting portion of the septum is found with about equal frequency on the right or left side, and in about ninety per cent. of the cases, is mostly located on the bony septum; though the cartilaginous septum is probably the first part involved. In about ten per cent. of the cases the cartilaginous portion causes the chief obstruction.

The remarkable relief experienced by patients after removal of obstructing portions of the septum is one of the most satisfactory results ever witnessed by the surgeon. Even when small obstructions have been removed the patients remark, "I never knew what it was to breathe before." In more pronounced cases they express themselves as "proud of their nose," and state that no one can appreciate what a "luxury it is to breathe through the natural channel." In the treatment of these cases I can say nothing whatever in favor of the old method of puncturing the septum, which does not relieve the obstruction, but furnishes a new source of annoyance from the scabbing which occurs. When there is only moderate flexure without thickening, the method adopted by Prof. Moses Gunn may be followed. He recommends oblique crucial incisions so as to allow the cut edges to glide over each other as the septum is forced to its former position, where it is retained by a plug until adhesions take place.

This operation is not applicable where there is thickening, or where the vomer is much involved. Such cases (and they constitute the greater number) require removal of the redundant tissue. In removing this, I formerly dissected off the mucous membrane from below, leaving its attachment above, and then removed as much of the mass as was necessary to restore the normal size of the cavity; but the dissection was a tedious process, and I learned by experience that it was unnecessary, except when the tissue to be removed was near the nostril. In other cases healing takes place almost as rapidly and quite as surely and perfectly, if no effort is made to save the mucous membrane. Now I saw off the spur, mucous membrane, bone, and cartilage together, on the normal plane of the septum, so that when the piece is removed the nares will be of normal size. When this has been done, if there is much bending of the septum it is straightened with forceps, and held in position by a plug or tube of gutta-percha, which may be worn constantly for a couple of weeks, and at intervals for two or three weeks longer, until the parts are fixed in a proper position. Sometimes, where the flexure is great, this cut will open into the opposite nares, but usually the mucous membrane of the opposite side is not cut through. However, when it is, the opening generally heals; though if it should not, it would be a matter of little consequence, provided the cut was far back on the septum.

If the opening be near the nostrils it might, as already suggested, become a source of much annoyance. Therefore in this position, care should be taken to save sufficient mucous membrane to cover it. After this operation the nares should be kept clean and thoroughly disinfected. This may be accomplished by washing with Dobell's solution or soda, and subsequently applying a powder of iodoform, but a pleasanter method and quite as effective is to have the nares sprayed two to four times a day with a solution of Listerine, ℥j or ℥ij to ℥j, which is thoroughly antiseptic and has a pleasant odor. The instruments used for the operation are an ordinary phalangeal saw, a small nasal saw, nasal cutting forceps, a nasal spatula, nasal scissors, and forceps for replacing the septum. The gutta-percha plug may be easily made from the sheets of this material which are used by dentists for making plates for false teeth. The parts should be thoroughly anæsthetized by cocaine before the operation, excepting in young children, in whom general anæsthesia will be required.

Hypertrophic Catarrh, or in common parlance, catarrh, is by far the most frequent cause of the form of laryngitis now under consideration. It is a frequent cause of deafness, and is a source of much discomfort to many people, even when it causes no impairment of the voice or sense of hearing. Until recently its treatment has been very unsatisfactory, but happily this is now changed, and we may undertake its cure with almost as much confidence as we could that of a case of intermittent fever.

As the symptoms of this disease are due to swelling or hypertrophy of the mucous membrane, and sub-mucous tissues, some plan must be adopted which will prevent the one and remove the other; and I may as well premise what I am to say on this subject by the statement that nothing short of surgical interference will certainly accomplish this end, though many local remedies are of temporary value.

The methods which have been recommended for preventing swelling and removing hypertrophied tissue are, cauterization by various chemicals, or the galvano-cautery, and removal by scissors, cutting forceps, or écraseur. Of the various chemicals,

[1] This is an instrument so constructed that as the wire loop is drawn back into the naso-pharynx, it may be easily opened and carried up behind the tumor, where it is held until the wires have been adjusted to the snare and drawn tight. Then the applicator is readily released from the wire and withdrawn.

chromic and glacial acetic acids have been found most useful, but both give considerable pain, though less than other escharotics; and neither has been found entirely satisfactory. The usual experience with chemical escharotics is, that the patient is partially relieved, and concludes that what remains of the disease is less disagreeable than the remedy; therefore he discontinues treatment too soon, and after a few months the disease returns. Remembering former suffering he does not return to his physician, and the latter, until he hears of the case accidentally, fondly hopes that it has been cured.

When the swollen tissues are prominent, and mainly confined to the posterior end of the turbinated body, no method is so successful for their removal as that by the steel wire écraseur, various forms of which are now in the market. When the anterior portions of these bodies are involved the écraseur, even when supplemented by a perforating needle, is a very unsatisfactory instrument. In cases of the latter variety occasionally nasal scissors may be advantageously employed; or, if the bone itself is hypertrophied, nasal cutting forceps with the scissors will be needed. In most cases no instrument answers the purpose so well as the galvano cautery, by which horizontal lines may be burned through the soft tissues down to the bone in two or three places, with the result of effectually preventing subsequent swelling, and restoring the naris to its normal calibre; whereby free nasal respiration is reëstablished. Thus the disease is practically cured, though for a time mild astringents or stimulating applications may be needed to restore the normal tone of the mucous membrane. After the burning, the nasal cavities should be kept clean by alkaline washes or sprays, to which about ten per cent. of listerine has been added. A powder composed of equal parts of boric acid and iodoform will be found an excellent application.

The instrument which I employ for the cauterization is a large two-celled galvanic battery, with carbon and zinc elements, and bichromate of potash solution, a universal handle and a platinum bladed electrode. The parts are first anæsthetized with cocaine, so that the burn is made without pain. The cocaine has no injurious effects, but care must be taken not to burn too much at once, lest severe inflammation be set up. Usually a single line from behind forwards on one side is as much as it is judicious to burn at a single sitting. Ordinarily the nares will be stopped for two or three days after the cauterization, and subsequently occasional touching of the part with a solution of nitrate of silver is desirable, to promote rapid cicatrization. This mode of treatment, when properly carried out, will surely cure the hypertrophic catarrh, and then the resulting laryngitis will either disappear spontaneously or may be removed by treatment.

The results of this treatment on the general condition of the patient are sometimes remarkable. Patients, who have for years been so frail that the slightest exposure or over-work would make them sick, will sometimes begin to improve at once as the result of more perfect oxygenation of the blood, and they became hardy and robust; so that it is a frequent occurence after a few weeks for them to remark that they "have not been so well for years." While at first this result seems singular, on second thought it is found to be upon the same principle that a weak person who has for years been confined in poorly ventilated apartments will speedly become vigorous and strong when removed to the pure atmosphere of the country.

In cases in which curative treatment can not be carried out, much temporary benefit may be obtained from the repeated application to the nares of cocaine. One of the remarkable properties of this drug, which was pointed out seperately and almost simultaneously by Dr. Bosworth, of New York, and myself, is that when applied in small quantities to the swollen turbinated bodies, it causes a contraction of the tissue within two or three minutes, which will continue for several hours. This will open the nares and allow easy respiration. I have employed this drug constantly during the past winter for the relief of acute colds, and in the examinations of hypertrophic catarrh with the most favorable results. I employ it in the proportion of 4 per cent. of cocaine to 96 per cent. of powdered starch or sugar of milk, directing that it be blown into the nares at bed-time, and repeated after four or five hours if needed. It causes the swelling to disappear at once, checks secretions, and allows the patient to breath easily through the nose; thus preventing laryngeal complications.

In conclusion I wish to call attention to the following propositions:

1. Recurrent laryngitis is usually dependent upon obstruction of the nasal cavities.

2. This obstruction in the majority of cases is caused either by deflection and thickening of the septum or by what is known as hypertrophic catarrh.

3. To effect a permanent cure the obstruction must be removed.

4. The operative procedures necessary for the removal of these obstructions may be made painless by the use of hydrochlorate of cocaine.

5. This method of treatment properly carried out may be relied on to cure the catarrh and the laryngitis which it has caused.

6. Great improvement in the general health often results from the removal of the nasal obstruction.

7. In acute colds or exacerbations of hypertrophic catarrh, immediate relief may be obtained by the insufflation often as needed of small quanties of cocaine.

64 State St., Chicago.

ANTIPYRIN; ITS HISTORY, PHYSIOLOGICAL ACTION, AND THERAPEUTIC EFFECTS.[1]

BY SAMUEL S. ADAMS, A.M., M.D.,

OF WASHINGTON, D. C.

As the question, "What is Antipyrin?" was asked in this Society one week ago, and not answered satisfactorily, the writer will endeavor, in as brief a manner as practicable, to answer it. For a year past the medical journals in this and foreign countries have been discussing the subject, and yet there seems to be a majority of the members of this Society who have acquired no knowledge of the drug.

[1]Read before the Medical Society of the District of Columbia, October 21, 1885.

Whenever a new remedy is introduced to the medical profession it meets with many curious experiences. Some promptly adopt and try any new drug that may be placed upon the market, especially if the price is high, and use it like a hobby until both their patients and themselves become convinced of its inutility. Others, not content with simply ignoring its existence, actually condemn those of their brethren who are bold enough to test its efficacy as a remedial agent. A large majority of the profession, however, accept for trial new remedies upon the recommendation of those skilled in physiological and therapeutical research. The last class would seem to be the wisest, on account of its willingness to experiment upon such a sound basis. If we did not accept the statements of the men we characterize as authorities, how long would it be before we reached the level of empiricism? If these authorities tell us that a certain newly discovered combination of elements has proven, in their hands, a more valuable remedial agent than any hitherto known, then it would seem to be our duty, as scientific humanitarians, to give that discovery a fair and impartial trial, and base our conclusions of its worth upon unbiased therapeutical evidence. If we had not accepted the statements of authorities where would cocaine have been to-day? Would it not have been consigned to the oblivion some have chosen for antipyrin? It seems to me the plain duty of the profession to try all remedies of recent introduction when they are endorsed by the recommendations and experiments of men who have devoted means, time and labor to discover and demonstrate their chemical, physiological and therapeutic properties.

Filehne, who had made previous experiments with kairin, was induced, at the suggestion of several chemists, to experiment upon the physiological and therapeutical properties of dimethyl-oxychinoline, an alkaloid discovered synthetically by Ludwig Knorr, assistant in the Chemical Institute at Erlangen. Filehne's results were such as to induce him to request his friends, in charge of various public hospitals in Germany, to make extensive trials with this drug in the reduction of temperature in various febrile and inflammatory diseases. It was also extensively used by Guttmann. The results obtained established beyond a doubt that the new drug was a safe and valuable antipyretic of limited powers. The deceptive but enticing name "Antipyrin" was given to Knorr's preparation by Filehne. With the endorsement of such men as Filehne, Guttmann, Huchard, Coppola and Migazzini, the drug came to America, where the experiments of Draper, Butler, and others, confirmed the statements of its antipyretic value. Certainly these facts and endorsements are sufficient to warrant others in further physiological and therapeutical observations with it.

We have no reason to doubt the honesty or integrity of Filehne and the various German writers who have endorsed this drug as a legitimate therapeutic preparation. When we remember that the discoverer is a scientific chemist, we certainly should not wish to deprive him of any emolument he may derive from its manufacture or sale. The reward sought to be obtained from a monopoly may be properly condemned in a physician, but should this rule extend so as to include all persons engaged in business pursuits? A parallel case, and one which possesses a slight shade of quackery, is that of Tanret, the discoverer of pelletierine, whose preparation is recognized by the dispensatories and sold at an exorbitant price by its sole manufacturer. Knorr, in taking out his patent, did not seek to place a secret nostrum on the market, but thereby simply secured to himself the right to manufacture a drug discovered by him. His formula and mode of preparation are not only open to public inspection but they have, I believe, been published to the world in several languages. The following is a copy of the patent granted him by the U. S. Patent Office:

UNITED STATES PATENT OFFICE.

Ludwig Knorr, of Erlangen, Assignor to Farbwerke, Vormals Meister, Lucius & Brüning, of Höchst-on-the-Main, Germany.

PREPARATION OF DIMETHYL-PHENYL-OXYPYRAZOL.

Specification forming part of Letters Patent No. 307,399, dated October 28, 1884.

Application filed March 5, 1884. (Specimens.) Patented in Germany July 22, 1883, No. 26,429.

To all whom it may concern:

Be it known that I, LUDWIG KNORR, a citizen of the Empire of Germany, and a resident of Erlangen, in the Empire of Germany, have invented certain new and useful Improvements in the Preparation of Dimethyl-phenyl-oxypyrazol; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same.

My invention consists of a new product, dimethyl-phenyl-oxypyrazol, from phenyl-hydrazine, the latter yielding, as products of a series of observations, new compounds, which I have found to be valuable medicaments.

The following is a description of my method of proceeding:

By mixing the body well known as acetylacetic ether with a molecular quantity of phenyl-hydrazine, water is eliminated, and a condensation product is formed, termed "phenyl-dydrazine-acetylacetic ether," of the formula:

$$C_6H_5—N_2H=\begin{matrix}CH_3\\C—CH_2—CO_2C_2H_5.\end{matrix}$$

When this product is heated to a temperature of 100° to 150° Centigrade, until a sample perfectly solidifies on cooling or on immersion into ether, a mass will result which, after crystallization from water or from some other medium, represents pure methyl-phenyl-oxypyrazol. Its formation from phenyl-hydrazine-acetylacetic ether takes place under production of alcohol, as expressed in the equation:

$$C_6H_5N_2HC<\begin{matrix}CH_3\\CH_2CO_2D_2H_5\end{matrix}=C_{10}H_{10}N_2O+C_2H_5OH.$$

When the methyl-phenyl-oxypyrazol thus formed is heated with methyl chloride, bromide, or iodide, it is readily converted into dimethyl-phenyl-oxypyrazol.

Dimethyl-phenyl-oxypyrazol is distinguished by the following properties: It crystallizes from ether in lamellæ of a pearly luster, melting at 113° centigrade. It is soluble in alcohol, water, and acids, from which solutions it is precipitated by concentrated alkalies. Its aqueous solution turns red on addition of ferric chloride, and green when a nitrite is added. When a concentrated aqueous solution is mixed with the solution of a nitrite, green crystals separate on standing.

What I claim as new, and desire to secure by Letters Patent, is—

The new product dimethyl-phenyl-oxypyrazol, the result of the process herein described, the same being distinguished by the properties herein mentioned.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

LUDWIG KNORR.

Witnesses: A. S. HOGUE, J. GRUND.

Filehne's observations show that the effect of the drug is gradual and persistent for from five to eighteen hours, the descending curve being also gradual; that in a large majority of cases there were no bad effects, though occasionally there was vomiting; that 75 to 90 grains should be given to adults in hourly doses of 30 grains; that the dose for children should be proportionate to age; that the dose to phthisical and thin people should be small; that the greatest fall of temperature observed by him was to 38 Cent. (100.4° F.); that the fall begins one and one-half to two hours after the first dose; that the decline is usually without sweating; that the rise, after reduction, is not accompanied by chill; that the pulse-rate falls with the temperature; that albumin was not in the urine; and that its color was not changed.

Guttmann observed that if there was great reduction of temperature there might be sweating; that vomiting was occasional: that the temperature fell gradually and continuously; that the maximum fall was in five hours; that the duration of action was from five to eighteen hours; that reduction resulted from a single dose of four grammes, or one gramme doses repeated every hour until five had been taken; that half a gramme or less every hour had no effect; and that the pulse fell with the temperature.

Coppola has given the formula of antipyrin as $C_{11}H_{12}N_2O$. He says that in frogs the reflex action is due to the action of the drug on the spinal cord; that in larger doses its action is transmitted to the brain, and it produces tetanic spasms which differ from the convulsions of strychnia poisoning either in their mode or their origin; that the frog may remain in this condition twenty-four hours, when the spasms cease; that hyperæsthesia lasts for several days; that in lethal doses the nervous system, preliminarily excited, produces death by paralysis; that if a large poisonous dose be given the frog falls paralyzed without any preliminary excitation; that the respiratory movements do not intermit until the advanced stage of poisoning; that in a short time they resume their action even though the frog becomes tetanized; that the heart still beats with considerable vigor after the frog is paralyzed; that the effects are similar in warm blooded animals; that death is produced by paralysis of the respiration, and the heart stops in systole; that it has no action upon motor nerves and striated muscles; that dilatation of the pupil is due to stimulation of the sympathetic; that as an antiseptic it has one-thirtieth of the strength of salicylic acid, and one-fifteenth of quinine; that it excites the intracardiac ganglia and also the vaso-dilators; and that it increases arterial tension.

Hénocque observed that it had considerable hæmostatic power; and that when applied locally its effect was greater than that of perchloride of iron.

Alexander says it is produced by the action of acetic ether on aniline. A full account of its chemical composition can be found in the report of the German Chemical Society, 1884, xvii, 549.

At my request, Dr. Louis Kolipinski has made some physiological experiments with the drug, at the Children's Hospital in this city. In justice to him it must be said that the conclusions derived from his experiments were drawn before he had examined the German and French literature on this subject:

EXPERIMENTS WITH NON-FATAL DOSES OF ANTIPYRIN.

In order to determine the physiological effects of antipyrin on animals, in large but not fatal doses, and also to note the variations which may result from quantity of drug and length of time in administration, a healthy male puppy two months old and weighing eighteen pounds, was selected. He received by rectal injection 10 grains for three sucessive hours beginning at 11 A.M., and 20 grains for the same periods of time immediately following. Thus 90 grains were given by four in the afternoon. The temperature was taken by keeping the thermometer bulb for five minutes in the groin. The animal was kept confined and was offered food.

The pulse, respiration and temperature recorded just before beginning the injections of the drug were 136, 52, 101.3° F. The temperature had declined 0.5° F. at 1 P.M., but stood again at 101.7° F. at 2 P.M., and 101.5° F. at 3. At 2:30 he vomited partly digested food, and at 4 P.M. there was a full flow of saliva. He became very quiet, so that it was not necessary to secure him in making records of body heat, etc. His temperature had sunk 0.6° F.; the pulse was diminished and the breathing quickened with wheezing expirations. He staggered in walking, but was perfectly conscious and intelligent. The pupils were moderately dilated and responded to the irritation of light. The saliva dripped from the mouth and tenaceous, frothy mucus was repeatedly vomited.

At 4:30 P.M. these symptoms continued. The conjunctivæ were very pale, and the gums bluish-white. The ventricular action had steadily increased in force. At this time the respiration and pulse were both diminished, and the temperature had fallen 0.7° F. Saliva and gastric mucus repeatedly tested gave no reaction with ferric chloride.

At 5 P.M. the pulse was the same, the respiration diminished, and the temperature 2.3° F. below its primary figure. The heart contractions were still powerful. Traces of antipyrin were detected in the urine by the iron salt. The intensity of the red color given by this reagent gradually increased.

At 6:30 the breathing was slow, the pulse increased and the temperature had lost 2.7° F. There was moderate hyperæsthesia and a few clonic spasms of the neck and forelegs. The dog sought the darkest corner in the room, and would start up and trot about, which act was followed by emesis of a sudden and violent nature. Ventricular action remained very strong.

At 9:30 P.M. the gums were of a deep blood-red color, much more intense than their usual pinkish hue. The temperature had risen to 100.7° F., pulse the same as at 6 P.M., and the respiration at its lowest, 24.

At 11 P.M. perfectly recovered. Temperature 102° F., respiration 28, pulse 168.

The following is the record with the falls of temperature, heart's action, and breathing:

		Temp.	Pulse.	Resp.
11	A.M.	101.3° F.	136	52
12	M.	101.4	112	50
1	P.M.	100.8	120	44
2	"	101.7	80	64
3	"	101.5	88	60
4	"	100.7	120	60
4:30	"	100.5	120	44
5	"	99	120	52
6:30	"	98.6	160	36
9:30	"	100.7	160	24
10:45	"	102	168	28
9:30	A.M	101.7	240	48

It is noticeable that the respiratory fall was the last to disappear, and that the pulse, which in the evening had an average of 160, had its minimum of 80 at 2 P.M. At 9:30 the next morning respiration and temperature were as usual, but the heart had increased to 240 with decided diminution of ventricular force. The animal continued playful and with good appetite throughout the day.

7:30 P.M.—Temperature 102.5° F. The room in which the experiments were concluded was close and warm (82° F.). The heart's action was so rapid and the respiration so panting that the former could not be counted accurately. He was given, by rectal injection, 60 grains of the alkaloid. At 8:25 full and copious vomiting.

8:30 P.M.—Dose was repeated. The heart and respiration now were 160 and 120, the temperature 102.5° F.

8:45.—Vomited last of digesting food. Antipyrin in the urine.

9:20.—Pupils dilated and animal much enfeebled. Temperature 102.2° F., respiration 240, heart's action weak. There was very marked hyperæsthesia of surface and tonic spasms of limbs on one and on both sides: 30 grains were introduced at 9:35. He was still able to run about and mucus vomiting persisted. The gums were not so pale as yesterday. Pupils mydriatic.

9:40.—Killed with chloroform. The only noteworthy appearances were: spleen unusually dark, stomach actively congested, kidneys pale and normal. The bladder held urine rich in urates and antipyrin, and giving no reaction for albumen. The right ventricle appeared large and soft as if from overdistension which had existed some short time.

The conclusions submitted are:

1. In the dog large clinical doses diminish the heart's action with increased ventricular energy.

2. A fall in the normal temperature of 2.5° F., which does not result in two hours, although the quantity of antipyrin be 1⅔ as much.

3. Vomiting, hyperæsthesia and tonic and clonic spasms are produced.

4. Vomiting is not due to local action on the stomach, and can be caused by a single dose of 60 grains without decline of temperature.

5. Antipyrine is eliminated by the urine, and not with the saliva or gastric mucus.

6. There is a secondary weakening of the heart.

7. There is dilatation of the pupil, probably due to stimulation of the cervical sympathetic.

8. There is a secondary enlargement of the calibre of the blood-vessels.

9. The fall in the heart-beats and increased ventricular energy precede the greatest fall of temperature and respiration.

10. The greatest fall in respiration follows that of temperature.

May[1] reports the following case of collapse: Male, 25, had croupous pneumonia of the left inferior lobe. On the third day of the disease the patient was pale and delicate; pulse hardly rhythmic; great prostration. Antipyrin was used as follows:

At 7 P.M. T. 39.8° (103.6° F.), P. 108, 2 grammes.

At 8 P.M. T. 39.3° (102.7° F.), 2 grammes.

At 9 P.M. T. 38.3° (100.9° F.), 1 gramme.

Only slight sweating. At 5 A.M. T. 53.6° (96.1° F.); collapse; frequent, minimal pulse; extremities cool, and face prominent. Recovery from collapse at 1 P.M.

Barrs[2] reports the case of Blose: Female, 35, miscarried at fifth month; confined to bed until about sixth: six weeks after entered hospital. Now had diarrhœa, abdominal pain, vomiting, headache and shiverings. Became progressively weaker; heart and pulse sounds were normal; turned in bed with difficulty.

3 P.M., P. 132, R. 36, T. 103° F. Antipyrine, 35 grains.

6 P.M., P. 108, T. 98.4° F. Antipyrin, 18 grains.

11 P.M., P. 132, rectal temp., 98.4° F.

Next day.—Patient restless during the night; diarrhœa and vomiting; P. 120, T. 98° F.; greatly collapsed. 5 P.M.—No reaction; death at 11 P.M.; during last half hour T. 100.6° F.

Sectio Cadaveris.—Brain and membranes congested; heart somewhat softened; lungs normal; spleen greatly congested; weight three pounds; softened, and contained a large infarction; kidneys enlarged; two to three conical infarctions.

In this case I do not believe death was caused by the antipyrin, but by the diarrhœa and vomiting, which had almost completely exhausted her when the drug was given.

My own deductions from experiment, observation and the experience of others regarding this drug, are that antipyrin is not an anti-periodic, but simply an antipyretic; that it reduces high temperature; that it may be given in all diseases accompanied by high temperature without regard to their pathological conditions; that it reduces the temperature without apparently affecting the pathological process which increases the body heat; that under its administration, in graduated doses, the temperature falls, but reaches its maximum again in a few hours; that its effects are transitory; that it is rapidly eliminated; that it reduces the pulse and respiration; that its depressing effects need careful watching to prevent collapse; that in case of threatening collapse free stimulation is necessary; that cerebral symptoms improve; that it reduced high temperatures, slowed the pulse, and increased its tension; that it markedly lessened

[1] Deutsche med. Wochenschr., Berl., 1884, X, 389.
[2] Lancet, 1885, I, 382.

the respiratory movements; that it restored the consciousness from delirium, and that it produced free sweating; that its administration was not accompanied by any alarming symptoms; that there was no vomiting; that its effects did not last longer than six hours; that there was no lowering of the daily maximum temperature; and that there was no appreciable effect upon the course of the disease proper.

To Dr. Kolipinski and the courteous gentlemen of the library of the Surgeon-General's Office, U. S. A., I return my sincere thanks for their valuable assistance in making a complete examination of the bibliography of this subject.

ON THE IDENTITY OF YELLOW FEVER AND ACUTE MALARIA — CONSEQUENT CONTAGIOUSNESS OF MALARIA AND CURABILITY OF YELLOW FEVER.[1]

BY VIEIRA DE MELLO, M.D.,

MEMBER OF THE ACADEMY OF MEDICINE OF RIO DE JANEIRO.

I.

Considering that pathologists and physicians of all countries are of one accord in admitting that "the epidemics of yellow fever are *always* preceded by serious cases of acute malaria," yellow fever must needs then, in my opinion, express the state of *saturation* of the atmosphere by the swamp microbe, thus permitting to man a greater absorption in due time, of the morbific principle; hence the very serious character of the symptoms presented;

Considering that the two morbid entities co-exist in the same zone and increase in direct ratio of the development of the malarious germ,—a fact largely observed at Rio de Janeiro, where yellow fever is a contemporary and a companion of the excavations, breaking out at the same time that these are effected, and following them in their way through the city;

Considering, besides, that yellow fever has no distinct characteristics of its own,—the symptoms that are ascribed to it being *strictly* the same that I have observed in serious cases of acute malaria, hæmorrhage and black vomit *included;*

Considering likewise,—and this argument is of surpassing value,—that, morphologically, the *element* considered as the generator of yellow fever, as drawn by Dr. Domingos Freire, is strictly the same that I have met with in the blood, vomit and urine of *patients suffering from acute and chronic malaria*, this last period of malaria serving exactly to avoid the objections of those who may ascribe to yellow fever a case of acute malaria,—a thing that cannot be even thought of in a chronic case;

Considering, moreover, that this very same element has been *found by me* in the water that is used for drinking by the inhabitants of places where malaria reigns endemically,—places where yellow fever is not even spoken of,—an argument that at once enlightens the etiology of malaria, and overthrows the objections of those who ascribe to pigmental alterations of the hæmatin the elements described by Laveran and confirmed by me;

Considering, finally, that all the cases of malaria that could have been, and those that were classified as yellow fever, and were attended by me, yielded to the specific treatment of acute malaria,—unsuccess in those in which this treatment was employed being due, in my opinion, to insufficient doses, bad quality of the medicine used, or tardy interference, when the organism is no longer in a state to absorb it,—or because the disease is several days old; or, lastly, because the attack has been so violent as to cause the same profound disorders that in milder cases would take time to make their appearance;

I have come to the conclusion that *yellow fever is a graver modality of acute malaria*, its superlative gravity; that, therefore, *it is not an idiopathic morbid entity*, as has been asserted until now, but the expression of gravity in another morbid state; and that the denomination of yellow fever should be substituted by the one of *grave malaria*, this qualification serving to designate the highest intensity of malaria.

II.

Amongst the objections that can be made to these doctrines, objections that have already been presented to me, the one that seems most weighty is the following: "Yellow fever cannot be of the same nature as malaria, since the first is contagious and the second not."

This is a great mistake. In the first place, no one, to my knowledge, has been able to demonstrate the contagiousness of yellow fever; that is, the *transmissibility* of the disease from body to body, by *contact*. In the second place, because malaria is susceptible of being transmitted by any individual to persons surrounding him, as well as of being transported to great distances. For example: An individual is possessed by the helococcus (ἕλος, swamp, marsh, and κόκκος, in Latin *coccus*, *coccum*, a germ, a seed, a small round body. This denomination, created by myself to designate the microbe of malaria, is based on the rules established by Egger for the construction of neologisms). He retires to his room, where he remains for several days without appropriate medication. The helococcus not being now attacked, and finding in the organism of the patient a favorable field for its development, proceeds on its evolutionary march. The patient, whose emunctory apparatus works, discharges continually from his body a certain quantity of these microbes that are thrown into the surrounding air, where, if they meet with favorable conditions, they live, develop and procreate. Therefore, after a certain time, the rooms of this individual will be transformed into a genuine focus or nursery of helococci, and, consequently, whoever enters there may receive the same morbific element that is found in a marsh or swamp.

And here we have the explanatian of the *contagiousness* of "yellow fever," which is at the same time the explanation of the *contagiousness of malaria;* a question that has been despised, why I cannot tell, since it is a known fact, as no one dares to deny, that malaria is a microbiotic disease. Thus, a person who has been infected in a marsh, may, in turn, constitute another *marsh*, focus or nursery, as long as his

[1]Communicated to the Académie de Sciences, of Paris, 1885.

organism affords to the helococcus the necessary conditions for its development and procreation.

And if such a case is likely to happen in reference to one single individual, it is much more likely to happen in places where the accumulation of patients is considerable; especially if the *enteric form* of malaria prevails, if hygienic rules are neglected, or if the fæcal matters are retained or thrown in the vicinity of these places.

Here is another example: A ship watering in a place infected by malaria, and carrying to its interior the helococcus, may, *ipso facto*, become a focus of malaria, and of the gravest kind; as its population not only breathes the air impregnated with the deleterious principle, but uses for drinking purposes the liquid drained from the very sources whence it emanates. Thence the greater gravity of cases of malaria occurring aboard ships,—cases diagnosticated as yellow fever,—a fact that has led certain physicians to admit, in opposition to all laws of pathology, a "ship yellow fever" and a "land yellow fever," the first being always of a much more serious character than the second.

Thus, malaria, though not a contagious disease in the strict sense of the word, is susceptible of being transported to great distances, and transmitted by man, under the condition that the helococcus in the vessel in which it is conveyed meets with the necessary conditions of life, development and procreation.

IS TYPHOID FEVER EVER OF SPONTANEOUS ORIGIN?

BY J. F. JENKINS, M.D.,

OF TECUMSEH, MICH.

Whether typhoid fever is or is not of spontaneous origin, remains an unsettled question. Murchison taught that it is of spontaneous origin. Many German writers are of the opposite opinion. In country practice we not unfrequently see cases like the following, with a distinct clinical history of typhoid fever:

H. P., family consisting of wife and four children, living in a rural district, where families are separated by distances of a quarter or half a mile. The eldest child, a girl aged 11 years, was attacked with typhoid fever on October 10th, 1884, and was attended throughout her illness by Dr. North, of this place. The disease assumed a malignant form, and the patient died on the ninth day after taking her bed. Three weeks after her death the mother, aged 35, and a son, aged 7 years, were attacked with fever. During the first week of their illness they were under the care of a homœopathic physician, but the family becoming dissatisfied, the writer was called to attend them.

Both were typical cases of typhoid fever. The mother died on the twenty-eighth day; the boy made a slow recovery. The father, aged 35 years, and a son, aged 9 years, were taken down with the disease. Each was attended by a different physician, and both physicians diagnosticated typhoid fever and treated them accordingly.

Both father and son recovered. There were no cases of typhoid fever within a radius of five miles of this family, but the surroundings were bad. The water supply of the family was doubtless contaminated by human excreta. This appears to be the only reasonable cause which produced the attack of typhoid fever in this family.

There were no other cases in the neighborhood. Neither the nurses who cared for them during their illness nor the neighbors who attended at their burial were taken with the disease.

Similar examples have come under the writer's observation, where a family living almost completely isolated were taken with fever, whose clinical history proved beyond a doubt the nature of the disease, which in a large proportion of cases is readily diagnosticated from the so-called typho-malarial fever. The isolated cases so frequently met in country practice are strong proof that typhoid fever originates spontaneously, and that all that is required to produce it is the decomposition of fæcal and other organic matter, which usually contaminates the well from which drinking water is obtained.

Tecumseh, November 10, 1885.

MEDICAL PROGRESS.

MATERIA MEDICA AND THERAPEUTICS.

THE ANTITHERMIC PROPERTIES OF THALLIN.—PROFESSOR JACCOUD read a paper on this subject at the meeting of the Académie de Médecine, on October 27. His experiments were begun in February, 1885. Of the chemical history of this drug, it is only necessary to say that it belongs to the series of bases of chinoline, that its formula is $C_{10}H_{13}NO$, that its scientific name is tetrahydro-parachinanisol, and that Skraup gave it the name thallin on account of its characteristic action in aqueous solutions of thallium. The sulphate and tartrate of thallin occur in the form of crystalline white powders. The sulphate is soluble in five times its weight of cold water; the tartrate is a little less soluble. The urine of persons who have taken thallin has a brown tint, with a more or less pronounced greenish reflection. The addition of a few drops of perchloride of iron produces a red color, but there is nothing special in this reaction. But if the urine to which the perchloride has been added be treated with chloroform or ether, a characteristic green color is produced.

Jaccoud has used thallin in seventeen adult cases, including six cases of typhoid fever, seven cases of pulmonary tuberculosis with pseudo-continued fever, three cases of pneumonia, and one case of facial erysipelas. The sulphate and tartrate were used indifferently, and the effects are so similar that it is useless to try to make any distinction in a general study.

The minimum quantity given in a day was 10 centig., the maximum daily dose 1 gramme. In the larger number of cases he gave from 40–50 centig. The mode of administration was always the same: the drug was given in unleavened bread, and whenever the daily dose was greater than 15 centig., it

was divided into two or more equal parts, as desirable. The greatest quantity taken at any one time was 25 centig. These doses were given every half-hour in some cases, but ordinarily every hour. None of the drug was given at any time without a previous thermometric observation. The drug was always commenced at 12 noon, the temperature being taken at that time, and afterwards every hour until 6 P. M. The temperature was always taken in the axilla, and with the same thermometer for all patients.

Effect on the temperature.—The first typhoid fever patient took on the ninth day 75 centig. of the sulphate, and the temperature fell 5.8° Fah. During the eight days following he took 50 centig. each day, with a mean fall of 3.6°. On the two following days he took 45 centig. each day, with a fall of 4.2°, 7.2°, and 4.8°. These were the 18th and 19th days of the disease. In thirty days he took daily doses of from 30 to 50 centig., with one dose of 75 centig., and the mean fall for the thirty days was 4.1°. Another typhoid fever patient took 50 centig. for four days, from the 14th to the 17th day; the minimum fall was 3.9°, and the maximum 5.4°. The mean fall in the cases of typhoid fever was 3.9°, and the average daily drug taken from 10 to 50 centig. In the cases of febrile tuberculosis the effect was scarcely less remarkable. The mean fall of temperature was about 4°, and the daily quantity from 10 to 50 centig.

Rapidity of action.—To properly appreciate this important matter, Jaccoud made a uniform calculation for all cases; the interval of time was measured from the time of administration to the time of lowest temperature. In the twenty-seven administrations to six cases of typhoid fever the mean time was one hour and a quarter; for twenty-seven administrations in seven cases of tuberculosis the mean time was about three hours. In the cases of pneumonia, the mean time was about one hour and three quarters; and in the case of erysipelas the time was three-quarters of an hour. From these results it seems that the nature of the disease has some effect on the rapidity of the action of the drug, and that it acts more slowly in tuberculosis than in any other disease.

Duration of the effect on the temperature.—Here also the nature of the disease seems to have an effect, and the effect is least lasting in typhoid fever. As regards the persistence of the minimum effect, it must be said that almost as soon as the thermometer has reached the lowest point it begins to rise again. As regards the time necessary for the temperature to rise from the minimum to the point of departure, the mean in typhoid fever was two hours and a half; in tuberculosis three hours and a quarter; in pneumonia three hours; in erysepelis four hours.

The effect on the patient.—When the temperature commences to fall the patient begins to sweat freely, this lasting until the lowest thermometric point has been reached; the perspiration then diminishes, and ceases during re-ascension. When the mercury begins to rise the patient, covered with perspiration, complains of a sensation of coldness, and in some cases there is a slight short chill. These effect are less marked than when antipyrin is used. In none of his cases did Jaccoud observe any gastric or cephalic effects, nor were there any phenomena relating to the organs of sense. It may be said, then, that the accessory effects may be said to be *nil*, on account of its energetic action, however, the medicine should be given with caution: collapse may be easily induced, even with moderate doses in cases of individual idiosyncrasy. It is the part of prudence, therefore, not to exceed a quantity of 20 or 30 centig. on the first day; and when the patient is much debilitated the quantity should not exceed 10 or 15 centig. As is the case with many drugs, thallin sometimes produces an exanthem, exactly similar to that caused by antipyrine: small spots of papular exanthem, isolated and of small size at first, after which they extend, unite and become confluent, when the eruption is of a fiery red color; it disappears on pressure, and returns immediately when the pressure is removed. It usually begins in the region of the knees, preferably on the internal surface, and looks as though it might be the effect of pressure of the limbs together. When it extends it has the remarkable and characteristic property of extending only on the extensor surfaces. As yet it has not been seen on the face. It is accompanied by a sensation of itching and burning. It usually lasts for about three days, though it may last five. It disappears without desquamation, as a rule. (This, it should be remembered, is the characteristic eruption of both antipyrin and thallin.)

Effects on the disease itself.—As is the case with antipyrin, thallin has absolutely no effects on the symptoms or evolution of the disease except the temperature; and even here it does not affect the general temperature-curve. Here again it is somewhat similar to antipyrine.

As regards antipyrin and thallin, then, it must be concluded that these agents are not a real addition to medical therapeutics—*Bulletin de l'Académie de Médecine*, No. 43, 1885.

[In a communication presented to the Académie on the following week, M. DUJARDIN-BEAUMETZ takes issue with Jaccoud as to the value of antipyrin and thallin. He denies the superiority of thallin over antipyrin, and asserts the converse for the following reasons: It is less active, and therefore more manageable; its depressing effects are less marked: and because thallin acts on the blood, and lowers the temperature by diminishing the respiratory power of the blood (in which it resembles kairin). Antipyrin, however, (and like it, salicylic acid, quinine and resorcin) lower temperature by acting probably on the thermogenic centres of the spinal cord. Kairin and thallin are not antiferments (as antipyrin, resorcin, etc.), but act directly on the blood globules, as has been shown by Brouardel, Loye, Hénoque, and Huchard. They may, therefore, be dangerous in the infectious diseases, in which the blood is already altered, and should be used only with great caution. Dujardin-Beaumetz admits that antipyrin has no direct influence on the course of the disease; that it is not well borne by some patients; and that the sweats caused by it enfeeble the patient. It is nevertheless true that its effects on tuberculous patients are excellent, and much more frequently good than bad. In the fever of resorption *(fièvre de résorption)*

antipyrin is superior to quinine and salicylic acid. We cannot expect to cure consumption by it, but we can successfully combat the pyrexia or hyperpyrexia, and for this purpose alone antipyrin is least objectionable. He believes, therefore, that antipyrin is a positive addition to therapeutics.—*Bulletin de l'Académie*, No. 44, 1785.

In Guttmann's opinion antipyrin is far superior to thallin or kairin, and entirely free from objectionable concomitant symptoms. Landenberger, Livierato and Predazzi, on the other hand, consider thallin as the best pure antipyretic, and assert that *it* is free from concomitant symptoms. Landenberger has used it in croupous pneumonia, typhoid fever, peritonitis, pleurisy, tuberculosis, erysipelas of the face, miliary tubercle, acute rheumatism, puerperal fever and gastric fever, sixty-nine cases in all. He administered it in single doses of gr. iv (25 centig.), gr. viii, and gr. xvi. The pulse fell in the same ratio after large and small doses, but the respiration was not materially influenced. Livierato and Predazzi used thallin in pneumonia, intermittent fever, pleurisy, diphtheria, and other febrile diseases, with success.]

DEODORIZED IODOFORM.—Many attempts have been made to overcome an almost fatal characteristic of iodoform—its disagreeable smell—without destroying the antiseptic virtues which it possesses. Surgeon-Major OPPLER, of Strassbourg, has just communicated to the *Centralblatt für Chirurgie* the results of some experiments in this sense, which seem to have solved the problem. He takes finely-ground coffee and mixes it with the iodoform in varying proportions; 30 per cent. of the coffee almost neutralizes the odor, while 40 to 50 per cent. completely destroys it. Mixed with iodoform ointment (1–10) in the same proportion, coffee quite deodorizes it. A point of great importance is that coffee itself possesses great antiseptic power, and exerts no deleterious effects on the wounds. Thus a smaller quantity of iodoform suffices, the disagreeable odor is abolished, and the occasional evil effects are done away with. Coffee has the power not only to arrest decomposition, but also to postpone it. Professor Lücke is of opinion that coffee-iodoform may answer well enough for outward applications, but that it is unsuited for the interior of wounds, as the coffee would be a foreign body and interfere with healing. The coffee, previously roasted, of course, must be ground into a very fine powder before the iodoform is added, and the two must then be intimately mixed. Time alone can decide whether this combination will secure a much desired end; or whether, like peppermint oil, tonquin beans, tannin, Peruvian balsam, and other substances which have from time to time been tried, the iodoform will prove itself the stronger. —*Medical News*, August 29, 1885.

SURGERY.

IMPROVEMENTS IN EXCISION OF THE KNEE-JOINT, AND IN THE LIGATURE OF LARGE ARTERIES.—MR. EDWARD THOMPSON says, on this subject: There are some points in the treatment of excision of the knee-joint, both at the time of operation and subsequently, which seem to me to deserve particular attention. I have had a good many of these cases under treatment from time to time in the Tyrone Infirmary; and the suggestions I have now to make, and which I desire shortly to detail, are the outcome of my experience.

In the first place, I always make the first incision nearly straight across the limb, and as small in extent as possible; with one sweep of the knife the ligamentum patellæ is cut through, and the joint opened. The upper end of the ligament is then seized and dissected off the bone, and the patella removed. The subsequent steps of the operation require no comment. When the bleeding has ceased, the cut surfaces of bone are placed in close apposition, and the divided ends of the ligamentum patellæ are strongly stitched together with carbolised silk; the skin-flaps are brought together in the usual manner, and the wound closed no drainage tube being inserted. The limb is at once put up in plaster-of-Paris, with a back-splint of strong hoop-iron; another strong piece of iron is bent over the situation of the wound, so as to allow the application of the proper dressings; two side-splints of hoop-iron, about eighteen inches long, and slightly hollowed over the wound are placed lengthways, across the site of the joint, and over the plaster-of-Paris, the whole being firmly secured by a bandage. A completely rigid and comfortable bed is thus secured for the injured limb. The upper and lower portions of the limb are padded with French wadding, and, close to the wound, with carbolic tow. If there be any discharge from the wound it will penetrate the tow, which can be readily removed and replaced without disturbing the limb. I have heard a great many discussions, and read a great many elaborate articles, on the proper method of treating these cases; but, as yet, I have seen no apparatus which is so easy of application or so reliable as the plaster case I have attempted to describe, and which is coming into very general use.

The chief points I wish to emphasise are—1, the small extent of the primary wound really necessary; 2, the preservation of the ligamentum patellæ, not by its non-division, but by the divided ends being stitched together; 3, the enormous anterior support afforded by the preservation of the ligament, and the lessened tendency to displacement; 4, the increased power given to the limb by preserving almost intact the insertion of the powerful crureal muscle; 5, that stitching the patellar ligament seems quite as efficacious as the recommendation by some authors of its non-division; and that, while effecting subsequently the same purpose, it in no way hinders, or renders more difficult, excision of the joint.

In all my recent cases of amputation of the thigh, I have tied the femoral artery with a strong carbolised silk ligature, and cut off both ends short. The wound has healed, and remained healed, in every case. Thus a troublesome cause of irritation—one end of the ligature being left hanging from the flap—and a very great impediment to the healing of the flap-wound by first intention, has been effectually got rid of. —*British Medical Journal*, Nov. 7, 1885.

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY.

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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SATURDAY, DECEMBER 5, 1885.

THE RELATIONS, PAST AND PRESENT, OF THE AMERICAN MEDICAL ASSOCIATION TO THE NINTH INTERNATIONAL MEDICAL CONGRESS.

From the erroneous statements that continue to be made in certain portions of the medical press of our own country, and still more in some of the medical periodicals and by distinguished individuals of other countries, it would appear almost a hopeless task to correct such statements, or to get the sources from which they emanate to comprehend and acknowledge a few simple but important historical facts.

For instance, Prof. Virchow is represented as recently saying that "the American Medical Association, a vast society of practising physicians, extending throughout the land, *usurps* the control of the organization of the next session of the Congress, and creates such confusion that I am informed, *verbally* and *by letter*, that no one at present is able to see his way out of the difficulty." The *Berliner Klinische Wochenschrift* speaks of "sitting under the *presidency* of Dr. Shoemaker." The *Medical Times*, of London, after quoting the *Wochenschrift's* transformation of Dr. Shoemaker from a simple Secretary of a Committee of Arrangements into the President of the Congress, exclaims in apparent apprehension: "Suppose Dr. Shoemaker and his friends decide that the Congress of 1890 shall be held in Texas!" The editors of a few of the medical journals in this country exhibit but little less confusion of ideas regarding everything that has been done, either by the American Medical Association or its Committee of Arrangements. They persistently confound the Committee of Arrangements and its Chairman and Secretary with the officers of the Congress, and some of them even now regard the present organized Executive Committee of the Congress as a "sub-committee of the Committee of Arrangements."

The *Medical Record*, of New York, in its leading editorial for November 21, 1885, after its customary misrepresentations about "New Code" and "medico-political issues," neither of which have anything more to do with the present Rules adopted for the Preliminary Organization of the International Congress, than they have with the war between the Kings of Servia and Bulgaria, says: "A few weeks ago the Executive Committee of the Congress passed a resolution declaring their independence of the American Medical Association, and thus entirely cutting themselves away from the authority of that body." Again it says: "As matters stand at present, the management of the next Congress is in the hands of an Executive Committee representing the new and enlarged Committee; the best men of the country have withdrawn from all connection with the Congress, and the great majority of the numerous important vacancies in the list of officers remains unfilled." And it concludes with the following extraordinarily *patriotic expression* of sentiment: "As there seems to be distrust of the Congress abroad and absolute hostility to it at home, the question is asked if it would not be wiser to have no Congress at all? Under the present policy this seems to be *very advisable.*"

Here is exhibited a singular idea of the obligations incurred by the profession in the United States when the invitation extended in its name was formally accepted by the last Congress in Copenhagen in open session, and it became impliedly pledged to make every needed arrangement for the meeting it had invited. The maintenance of simple good faith in the performance of duties voluntarily assumed on the part of the profession of our country, to say nothing of its honor and scientific interests, appears of very little importance in the estimation of the *Medical Record.* Because there have been sufficient differences and misunderstandings, fostered actively by the *Record* itself, to create *distrust* abroad; and some direct hostility, largely again from the *Record* itself, at home, the profession of this country should ignominiously forfeit its obligations to the profession of the world and let the International Medical Congress, it had invited to assemble in our National Capital, die. Yes, rather than lay aside personal prejudices and individual preferences, and come together under Rules confessedly unexceptionable, and a Preliminary Organization capable of accom-

modating fairly all desirable interests, the *Medical Record* says "to have no Congress at all seems to be very advisable."

We are glad to know that such sentiments are shared by only a very few members of our profession, and that there are gratifying indications of returning harmony, sufficient, at least, to maintain the honor and integrity of the profession, and make the Congress of 1887 equal to any that have preceded it, even though the *Record* should continue its unpatriotic misrepresentations to the end. But how much better would it be for all parties, if now, when the Committee of Arrangements has transferred the whole future management of the Congress to the Executive Committee of the Congress itself under the most liberal Rules, all parties should lay aside their personal preferences, at least so far as necessary to restore that cordial coöperation which would speedily remove the *distrust* abroad, and render *hostility* futile at home. The Executive Committee have formally invited this coöperation, and are delaying the filling of the only three important vacancies that remain at the heads of Sections to learn the results of their overture.

THE CONTAGIOUSNESS OF LEPROSY.

At the meeting of the Académie de Médecine, of Paris, on July 28, M. Constantin Paul read a report on a study of the lepers of Constantinople, by Dr. Zambaco. In this report he attempts to show that leprosy is not contagious; he does not admit that a healthy person can contract the disease from a leper, even by inoculation, and this conclusion has been reached after a thorough study of the disease in Norway, Egypt and Constantinople. And while he cannot admit the influence of contagion, he thoroughly endorses the views as to the hereditary origin of the disease,—views which are supported by the investigations of Boeck and Danielssen, and also by a study of the disease as it occurs in restricted localities, such as in Louisiana and New Brunswick, where it may be traced back in families for several generations, as in Norway.

At the meeting of the Académie on October 13, M. E. VIDAL read a paper on "The Contagiousness of Leprosy," which was substantially an answer to the communication of M. Zambaco. As to heredity being the sole factor in the propagation of leprosy, he thinks it sufficient to say that the children of lepers often remain free from the disease; that even when these children are attacked the disease seldom makes its appearance before the eighth year; and that it may skip one or two generations entirely. Since Zambaco is an advocate of the theory of heredity, he has made the most careful investigations on this point in the East; but he has been able to find that in only one-fortieth of the lepers is the disease directly or indirectly hereditary. Even in those places which afford the strongest proofs of heredity it often fails to appear in the descendants of lepers, and often affects persons in whose families it has not previously existed; and it is a well-recognized fact that it sometimes affects persons, in countries where it is not at all prevalent, who have visited places in which it is endemic; and that immigrants to infected from non-infected districts are often attacked (White).

In order to explain how so small a proportion of the cases in the East are traceable to hereditary transmission, Zambaco thinks that the disease, necessarily of external origin, is *acquired*, the preponderating influence being attributed to want, eating salt fish of inferior quality, and in some cases to violent moral emotions. The theory of transmission by inoculation, however, is strongly supported by some of the examples cited by Zambaco. He says: "Lymphatism and scrofulism predispose to leprosy. I have often seen persons who had for several years had scrofulides or common affections of the skin (eczema, psoriasis, prurigo, acne rosacea, itch, etc.) later become leprous, and sometimes preserve the old cutaneous affection along with the leprosy." But are not these persons, asks Vidal, debilitated by want and disease, living promiscuously with lepers, in the most favorable conditions for contracting leprosy? In contact with the blood and pus from the ulcers of those already affected, is not the skin, which is already excoriated and open to inoculation, in a fit condition for infection? It need scarcely be said that those who have studied the disease as it exists in the Hawaiian Islands, firmly believe that it is contagious in the sense of being transmitted from one person to another by inoculation, as may be seen by reference to the writings of Kneeland, White, and Tryon. The physicians in the islands of Reunion and Mauritius believe in the contagion of leprosy. Le Juge de Segrais writes that there are several thousand lepers in Mauritius, and that all the physicians on the island believe that the disease is essentially contagious. "There is no doubt of it. It is also hereditary, attacking families in good circumstances, in which want has never existed."

The first methods of segregation of lepers, says Vidal, arose from the ideas as to its contagiousness; and facts show conclusively that this is by far the best method of dealing with the disease, so far as prevent-

ing its spread is concerned. As regards the question of contagion, however, he thinks that leprosy is contagious only by inoculation. Without admitting the possibility of this mode of transmission it is impossible to explain very many cases of leprosy. Doubtless such inoculation is often difficult, and a long time must sometimes elapse before the effects are seen. On the other hand the effects sometimes appear very quickly. Vidal cites the case of a woman who became leprous soon after her husband contracted the disease, there being no history of leprosy in her family, and she had never been outside of France. The husband contracted the disease at Nice, where there were a number of lepers. Similar cases have been reported by other writers, the most recent by Poupinel.

In connection with this subject may be mentioned the recent report of Brigade-Surgeon H. V. Carter, of the Indian Medical Service, British Army, on the prevention of leprosy by segregation, quoted in the *British Medical Journal*, of Nov. 14, After reviewing the status of the disease in Norway, and the death-rate, and the influences that may have tended to lesson the prevalence of leprosy he concludes that "the amendment of public health cannot be satisfactorily accounted for by reference solely to a general improvement in diet, dwellings, soil, or climate; nor has purely medical treatment ever proved curative; and so far from leprosy, in Norway showing a natural tendency to subside, there is ample evidence of a present activity equal to that displayed by the disease twenty-five years ago." He thinks that there are three practical methods of segregation, which may be separate or combined: (1) The erection of plain asylums at certain centres, each to be a refuge common to several districts, and a place of detention, under proper management and supervision. (2) The foundation of leper colonies or village communities of the affected, who, while allowed more liberty of movement, should not be allowed to mingle with the peasantry around; which would need strict supervision; (3) Requiring the strict isolation of lepers who are retained in their own homes at the request of their friends; for which suitable separate lodgings are indispensable.

As regards the statement "nor has purely medical treatment ever proved curative," it should be remembered that Unna has reported a case of lepra tuberosa cured in four months (see THE JOURNAL, October 31, 1885, p. 486.) Such a report coming from so careful an observer admits of no reasonable doubt, and is worthy of great attention by those who have the care of lepers.

CREOSOTE IN THE TREATMENT OF CONSUMPTION.

The history of creosote exemplifies the mutations to which therapeutics are liable, particularly as regards phthisis. Furthermore, the change of professional opinion from time to time, and the contradictory statements of physicians concerning the value of remedies in tuberculosis only illustrate the powerlessness and desperation felt by medical art when opposed by so dreaded a foe.

After the discovery of creosote by Feichenbach, in 1830, and before its therapeutic range became limited by practical experience, it was recommended for almost every form of internal and external disease. One of its many uses, suggested perhaps, by the fact of its derivation from wood-tar, was in the treatment of pulmonary complaints; and in consumption it soon won great distinction. After a time, however, the remedy fell into discredit in the treatment of phthisis, except in the form of an atomised solution for inhalation. Used in this way it long retained considerable popularity, particularly when the sputa were fetid. Although its internal administration was abandoned in consumption, it was not altogether dropped from the list of agents available for chronic bronchitis; while on account of its hæmostatic properties it was occasionally administered in pulmonary hæmorrhage. Nevetheless the internal use of creosote was exceptional, and the mass of the profession employs it only in inhalation.

It is with all the greater interest, then, that we find Jaccoud reverting to one of its discarded uses, and recommending it strongly as one of the indispensable internal remedies in the therapeutic management of consumption. In his recent work, to which reference has been made repeatedly in the editorial columns of THE JOURNAL, he dwells at some length upon the therapeutic indications furnished by the general malnutrition of tuberculous patients. These indications are met by hygienic measures, and the administration in large amounts of cod-liver oil, glycerine, iron, arsenious acid, etc. But there remains a second indication, which is to counteract the irritation and other local effects of the lesion. Formerly Jaccoud met this indication, he states, by the administration of balsams, tar, or turpentine, but since the investigations of his eminent colleagues Bouchard and Gimbert with beechwood creosote he has substituted this agent for the others just mentioned. He is of the opinion that it acts more rapidly and surely in lessening expectoration and ameliorating the bronchial lesions, and thus tends to limit the extension of the local changes. "Nor is this all, since creosote seems

also to have some effect on the fundamental lesions themselves, and to promote the sclerotic change by means of which recovery is found to occur in this disease."

He has often observed that after the physical signs have shown the pulmonary disease as diminished in extent, and the "peritubercular catarrh" lessened, the administration of the drug for several months longer has resulted in a still further decrease in the area of the local changes. This limitation of the disease he ascribes to sclerosis of the peripheral tissues. "On account, then, of these and other analogous facts, creosote, combined with other means of treatment, seems to act not only upon the catarrhal, but also upon the tuberculous lesions, causing the sclerotic change to predominate over that due to sloughing or caseation." It should be said that, in addition to vigorous measures directed to the improvement of the constitutional condition, he employs alcohol, with strong and declared faith in the power of this last named agent to promote the sclerotic change. "Independently of these results, creosote may be also recognized to have an antiseptic or anti-putrid effect, on which account the fever due to absorption (*la fièvre de résorption*) is averted for a considerable time." Creosote is, in his estimation, so valuable as to be an indispensable remedy, and he never omits to employ it. Although not immediate, its effects are permanent and decided, even when given in small doses. Pyrexia is no contraindication to its employment. Indeed, the only limitation to its use is the gastralgia which it provokes if the stomach be irritable, or the dose too large. In order to avoid this complication, the dose should be small, in which case the remedy can be taken for months with benefit.

If intolerance once occurs, it is most difficult to again administer the drug. "It should therefore be the rule to administer a small dose at first, and to increase it but gradually; beginning with the amount of not more than 3 minims daily, which may be increased by 1 minim in each week or ten days until as much as 5 or even 6 minims are given. This dose should never be exceeded, and is but rarely reached." Jaccoud no longer administers creosote in capsules, because of the gastric irritation produced, nor does he give it in wine, owing to the disagreeable taste of the mixture. He combines it with the cod-liver oil or glycerine, as follows: Cod-liver oil, 2 ounces; creosote, 3 minims; and oil of peppermint, 1 minim. This constitutes the daily dose, and, owing to the peppermint, is not disagreeable to take. If glycerine be employed, the formula is: Glycerine, 12 drachms; cognac or rum, 3 drachms; creosote, 3 to 6 minims; and essence of peppermint, 1 minim. This combination is highly agreeable and beneficial, and can be taken, according to Jaccoud, for an indefinite length of time.

Although one may not be inclined to endorse or accept all of Jaccoud's conclusions concerning this remedy, yet the experience of so skilful a clinician should not be allowed to go for naught. It is not unreasonable to assume, therefore, that, if employed systematically and persistently in the treatment of consumption, creosote will yield better results than is generally believed, and that the praise lavished upon it in years gone by was not wholly unmerited.

HYPNONE—THE NEW HYPNOTIC.

Phenyl-methyl-acetone or aceto-phenone are the chemical names of a new drug, upon the hypnotic properties of which M. DUJARDIN-BEAUMETZ has recently made a report to the Académie de Médecine, and which he has thoroughly studied with Dr. Bardet, at the Hôpital Cochin. On account of its very marked hypnotic properties the experimenters propose for it the name hypnone, which is more convenient than the other names, and is at the same time descriptive of its properties and nature. It was discovered by Friedel in 1857, its formula is C_8H_8O, it is a liquid at 20° C., and boils between 198° and 199° C. Its specific gravity is from 1,032 to 1,015, it is not soluble in water, and its strong odor resembles that of cherry-laurel water or cut oats. Its physiological properties have been studied by Popoff and Nencki, who showed that it is transformed in the organism into carbonic and benzoic acids, and that it is finally found in the urine in the hippurate state.

When administered to an adult in doses of 3 or 4 drops—5 to 15 centig.—mixed with a little glycerine and given in a gelatin capsule, hypnone produces deep sleep, and in alcoholic subjects its hypnotic properties are superior to those of chloral and paraldehyde. Dujardin-Beaumetz and Bardet have administered it to nine patients, and have as yet seen no symptoms of intolerance. The halitus becomes unpleasant from the elimination of acetone by the lungs. Injected under the skin of a guinea-pig 50 centig. caused profound sleep, which deepened into coma, in which the animal died in about six hours. The discovery of a drug with such effects from a very small dose must be regarded as a valuable addition to therapeutics. It still remains to see why it is a hypnotic, and whether further experimentation will abundantly confirm the claims of the distinguished clinician who now reports upon it.

SOCIETY PROCEEDINGS.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday, November 5th, 1885.

THE PRESIDENT, B. F. BAER, M.D., IN THE CHAIR.

(Concluded from page 612.)

DR. WILLIAM GOODELL exhibited the ovaries from

TWO CASES OF OÖPHORECTOMY FOR OVARALGIA,

with the following histories: When the patient, an unmarried woman, aged 30, first consulted him, she weighed 236 lbs., but at the same time she was very weak and could barely walk. She suffered excessive pain at her catamenial periods, which appeared only at long intrvals. She had cataleptic and hystero-epileptic fits, and complained of very constant and acute ovarian pains. Her urine was passed but once a day, and this act was attended with much suffering. The womb was enlarged and the ovaries were very tender indeed, but nothing else abnormal was discovered. Asafœtida and the bromides were prescribed in large doses, and she was advised to try the rest treatment. Fourteen months later, she was again brought by her physician to consult Dr. Goodell. She now weighed only 120 pounds, having lost 116 pounds, and she was in every respect worse, her ovarian pains being now constant and very acute, requiring large doses of morphia to control them. Her catamenia had not appeared for nearly four months, and tonics seemed to have no effect whatever on her. Her physician was compelled to be in constant attendance on her, and was liable to be summoned at any hour of the day or night to give her a hypodermic injection. Masturbation was suspected, but she always denied practicing this habit. Nothing further could be done than the operation of oöphorectomy, which was accordingly performed a few days later at the hospital of the University. The ovaries were found much enlarged from cystic and interstitial degeneration, but there were no evidences of peritonitis or of cellulitis, which had been suspected. A corpus luteum existed in one ovary, a rectal hæmorrhage or vicarious menstruation having taken place a few days before the operation. Her ovarian pains at once left her; she needed but very few doses of opium, which was given by rectal suppositories. Her convalescence was prompt, and she returned home in less than four weeks free from all pain, and in a fair way to get perfectly well. The case was a typical one of the advantages of oöphorectomy; nevertheless he thought that the operation was being performed altogether too frequently.

OÖPHORECTOMY FOR BLEEDING FIBROID OF THE WOMB.

In this case the lady was 37 years of age, and had been married eleven years. She gave birth to a child about seven years ago, and since then has had one premature birth at seven months and one miscarriage. She first noticed an abdominal tumor nine years ago, but her catamenia began to be free some time before this. Late in the year 1881 the catamenia began to be excessive. As nothing served to check them, early in the following year Dr. Goodell was consulted. He found multiple fibroid of the womb. Six tumors could be readily made out, of which two seemed pedunculated; the sound gave a measurement of 4.5 inches. Under ergot and ammonium chloride the patient improved for several months; then the menorrhagia became worse, and finally a dribbling of blood kept up between the periods. In May of the present year, she again consulted Dr. Goodell. She had been dribbling continuously from January, and was much reduced in strength. Being a brunette, she exhibited the *facies uterina* in a most marked degree, the pigmentation being very dark and extensive. The womb now measured 7.5 inches. She was admitted into Dr. Goodell's private hospital, and on May 24 both ovaries were, without difficulty, removed. They were greatly enlarged by follicular degeneration, a condition which Dr. Goodell had repeatedly seen in cases of fibroid tumor. The effect of the operation on the tumors, and especially on the main one, was astonishing. After two weeks this fibroid had diminished in length nearly a hand's-breadth. Her recovery was prompt, and she was sent to Atlantic City to recruit. On July 10, just forty-seven day days after the operation, she called on Dr. Goodell, who found the tumor very greatly reduced in size and the uterine cavity measuring only 3.25 inches, a diminution of 4.25 inches. This extraordinary amount of diminution, in spite of the fact that the obliteration of the ovarian blood-vessels cut off only a small portion of the blood supply to the womb, drove him to the conclusion that the ovaries were the important factors in inviting blood to the womb. Every successful case in which he had removed the ovaries for fibroid tumor of the womb had been followed by the menopause and by rapid diminution in the size of the tumor. But in his hands, and in those of others, this operation was more fatal than that of ovariotomy. During the ten months of the present year he had had twenty-five cases of ovariotomy with but one death, and that one in a lady operated on at her home, 200 miles from Philadelphia. For simple cases of oöphorectomy the mortality should not be greater than that of ovariotomy; but, when complicated with the presence of a large or an adherent fibroid tumor, the operation is often one of great difficulty. Twice during the past year he was unable to reach the ovaries, and was compelled to abandon the operation because, in neither case, was the woman willing to undergo the risk of having hysterectomy performed. Each case recovered, and while the women were under observation the tumors appreciably lessened in size, as if the shock of the exploratory incision had temporarily suspended the ovarian influence.

DR. E. E. MONTGOMERY was glad to hear the good results in Dr. Goodell's cases. In a few of the cases upon which he had operated, the menopause did not at once occur, sometimes not for two years after the operation. In such cases the tumor did not decrease in size while menstruation continued. In the case of hysterectomy for fibroid tumors reported by Dr. Montgomery at the last meeting, the temperature

at no time exceeded 101⅗°, and the patient left the hospital to-day, perfectly well. He preferred removal of the uterus and its appendages entire when the ovaries cannot be removed in consequence of previous inflammatory changes. Ligation of blood-vessels supplying the tumor might be useful when nothing better could be done.

DR. BAER thinks that when the ovaries can be removed, it is the preferable operation.

DR. GOODELL has been so uniformly successful in removing the ovaries for the cure of fibroid uterine tumors, that it is his choice. He has been notified that in a case of fibroid tumor of the womb in a woman aged 33 years, he will be called in consultation, this will be the third. He will advise removal of the ovaries; if at the time of operation that is not found possible, he will close the incision, as the other operation is very dangerous, and the patient can certainly live a few years as she is. In one case only of his oöphorectomies have the menses continued, and he thinks that in that case there must have been some supplementary ovarian tissue.

Dr. E. E. Montgomery exhibited for DR. W. H. WARDER

A LARGE OVARIAN TUMOR,

and related the following history: The patient was a young woman. Her menses commenced at 17 years of age and had always been irregular. They ceased entirely for twelve months, and at the same time the abdomen was enlarging until the tumor reached above the navel. Fluctuation was doubtful; the mass seemed quite solid, and pressed the uterus down into the pelvis. Anæsthesia did not relax the abdominal wall, and diagnosis was doubtful. An exploratory incision, showing the pearly tint of an ovarian tumor, made it sure. Nothing would pass through the trocar, but some of the jelly-like contents of the tumor escaped beside it and passed into the abdomen. The large cyst was filled with small cysts. The patient did well for one week, then the pulse became rapid; but she has since been doing well and is now rapidly recovering.

DR. GOODELL thinks the danger from the escape into the abdomen of cyst contents is overrated.

DR. BAER said that in the early stage of ovarian tumors metrorrhagia is sometimes present; sometimes the menses are entirely absent. He should like to hear from the Society some reason for this inexplicable difference.

DR. GOODELL has observed the same fact, but can throw no light upon it.

DR. MONTGOMERY remarked that in this case both ovaries had undergone cystic degeneration. The second ovary contained numerous small cysts. In reply to Dr. Baer's inquiry about the treatment of the second ovary, Dr. Montgomery said that it was removed.

DR. CHAS. HERMAN THOMAS read a paper on

SOME USES OF COCAINE IN GYNÆCOLOGY.

Seldom does a new drug reach so sure a place in the confidence of the medical profession as that accorded to cocaine. I early began its employment in ophthalmic practice, and soon extended its use to a variety of gynæcological applications. The results obtained have been so satisfactory that I now never go to such a case without cocaine in my bag or pocket. After considerable experience in its use, I am convinced that it is quite as valuable in the latter case as in the condition for which it was originally recommended. That it is a local anæsthetic when applied to mucous surfaces is a familiar fact, but its property of reducing in inflammation and engorgement of the same class of tissues is not so generally recognized, notwithstanding that is a point of considerable practical importance. This action of the drug is readily verified by observing the marked paleness and shrinkage which follows in a few moments after its application to surfaces thus affected. While this condensation of tissue is to a considerable degree temporary, it seems to be of longer duration than the accompanying anæsthesia. In some cases the good results obtained by reducing hyperæmia in this manner appear to be permanent. The common fear that it will fail to prevent pain may usually be overcome by placing a few drops of the solution on the tip of the patients tongue, when the numbness produced seldom fails to induce full confidence in its efficacy.

Cocaine hydrochlorate is the salt upon which my experience is based[1]. A four per cent. solution, gr. ijss to f3j of water, acts well for most purposes, though a somewhat weaker or stronger one may sometimes be substituted with advantage. The addition of boracic acid in the proportion of gr. ij to the f3j insure sterility of the solution. When used, it should be applied with thoroughness, the parts being first freed from mucus and some minutes allowed to elapse for its effects to develop; the time should be *not less than ten minutes*, and in cases where considerable pain is to be anticipated, a strong solution, ten per cent. or more, may be employed, and the application repeated after an interval of ten minutes, and in five minutes from the beginning the full effects of the drug may be looked for. That the anæsthesia produced by cocaine is complete, I have personally experieneed, having made use of a four per cent. solution by injection into the nostrils previous to an application of the galvanic cautery to the nasal cavity. The cautery had been applied at a previous occasion without cocaine and the pain was severe. With it, not the slightest pain was felt, and I was conscious of the action of the cautery only by the hissing sound produced.

I have found it particularly valuable in certain cases of cervical endometritis in which, though there may be no erosion externally, and but little characteristic discharge, there is a state of extreme sensitiveness existing about the region of the internal os uteri, a probe or cotton, easily bringing blood, and any application made to the part is liable to produce bleeding and severe radiating and ovarian pain. Cocaine carefully applied with the syringe or the cotton-carrier, prevents the pain and bleeding, which would otherwise follow the necessary medicinal application; the swelling being also materially reduced. The congestive or inflammatory stenosis which usually

[1]The price has been reduced to ten cents a grain or less.

exists is consequently for the time relieved, and applications to the part itself, as well as to the entire endometrium, are greatly facilitated. In urethral caruncle sensibility may be so destroyed that the painful excrescences may be clipped off and the site painlessly cauterized. Cocaine is also extremely useful in painful irritation and inflammation of the female urethral tract, and especially of the part just within the meatus, a condition attended with distress frequently referred to the bladder. Appropriate medication is painlessly made after its application, which may be conveniently made by means of the glass medicine dropper; as a means of preparation for the operation of stretching either the urethra or the cervix uteri it is of unquestionable value. To precede the application of caustic to a chancre it is also effective. I am informed by my friend, Dr. Levis, who has had a large experience with the drug, and who uses it extensively and with great satisfaction, that plastic operations upon the vagina where considerable surfaces are to be flayed, the cocaine anæsthesia is insufficient to prevent pain. It has been recommended in dysmenorhœa, and there is good reason to believe from several reports which have been made, that it is capable of producing excellent results when applied to the os uteri and to the cervical cavity by means of a small cotton tampon. I tested it recently in a case of uterine colic, using it hypodermically in two doses of one grain each about half-an-hour apart, but without appreciable relief. It has been tried internally in doses of one grain or more in the vomiting of pregnancy, and has met with some favor, but in the only case within my own knowledge it entirely failed.

In a case of vaginismus brought me by a practitioner from a neighboring city, the condition was quickly relieved by the local application of cocaine, and a complete examination was easily made, when without its use general anæsthesia would have been necessary. In a case of hyperæsthesia of the vagina with mild vaginismus, in which frequent local treatment was required, a suppository containing one grain of cocaine introduced into the vagina a half-hour before each treatment, entirely abolished the spasm and rendered the introduction of the speculum easy and comparatively painless. Cocaine suppositories also produced excellent results in a case of rectal tenesmus after opium had proved insufficient. Cocaine has been recommended in operations for lacerated cervix, and for the crushing of stone in the bladder. I have not made use of it in either of these applications, but strongly believe in its value. In one hyperæsthetic patient in whom violent pain was developed on slight provocation, and who required local treatment of the cervix uteri and urethra, but who suffered so much from ordinary applications that the local benefit was fully counterbalanced by harm done nervously, it became necessary to suspend treatment on this account. After cessation for six months, treatment was resumed under cocaine, and it has since been in every way satisfactory, the pain formerly produced by applications to the cervix being now entirely absent. In the same patient painful irritability with spasm of the bladder simulating cystitis, which was not entirely relieved by the opium suppository and other measures, yielded completely, and thus far permanently, to a single injection of one grain of cocaine thrown into the bladder. The resumption of treatment in this instance was largely due to the enthusiastic approval of the husband, who had himself experienced complete relief from the injection of a dram of the two per cent. solution into the deep urethra for a violent urethrismus. In another instance, in a woman with irritable piles, red as a ripe strawberry, and who was suffering extreme discomfort, the piles shrank and turned pale under the cocaine application, and were then painted with tincture of iodine with entire absence of pain.

Dr. Keating has used cocaine for some time in the same class of cases. He now uses eight per cent. solutions with great success, especially in children's throats. He employs salicytate of cocaine in diphtheria in a five or six per cent. solution, sensibility disappears in a short time, and he can then use any application without discomfort. He applies carbolic acid, tincture of iodine, etc., in this manner without exciting pain. He also applies cocaine before injecting carbolic acid into piles, and also applies it on cotton to prevent its action ceasing too soon.

Dr. Thomas said that the strength of the solution may, with propriety, be greatly varied, and that in his practice upon the eyes, even a one per cent. solution was strong enough to be of considerable value in conditions of irritation produced by foreign bodies in the eye; but in other cases, as urethral caruncle, it might be well to use it even in saturated solution. The question of strength is largely a question of expense, for in local application no toxic results are likely to be produced.

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Stated Meeting, October 21, 1885.

The President, W. W. Johnston, M.D., in the Chair.

Dr. J. B. Hamilton presented for the inspection of the Society the patient upon whom he had performed a

LAPAROTOMY FOR A PISTOL-SHOT WOUND OF THE ABDOMEN PIERCING THE INTESTINES,

whose case had recently been fully reported in the Journal of the American Medical Association. (See page 202.)

Dr. G. N. Acker presented

A PSAMMOMA OF THE FOURTH VENTRICLE,

together with the cerebellum and pons. The tumor arose from the vessels of the fourth ventricle, and filled the ventricle. The arteries of the cerebellum were in a state of calcareous infiltration. The man suffered from some vomiting spells, vertigo and convulsions. The seizures would come on suddenly and last for some days. A brain tumor was suspected.

DR. S. S. ADAMS read a paper on

ANTIPYRIN; ITS HISTORY, PHYSIOLOGICAL ACTION, AND THERAPEUTIC EFFECTS.

(See page 621.)

DR. KING thought the reduction of temperature in the dog was due to an almost fatal condition of collapse.

DR. LOUIS KOLIPINSKI explained thoroughly the various steps he had taken in discovering the physiological action of antipyrin upon the dog.

DR. C. E. HAGNER said he did not propose to discuss antipyrin, for he had had no experience with it. He thought, however, that it was a great mistake to be constantly endeavoring to reduce temperature. Every disease has a natural course, and within certain limits fever is a part of that course. If the patient's system is able to stand the waste, the fever may safely be permitted to run its definite course. At any rate, more harm is done by using antipyretics which affect the heart secondarily. He believed that many times salicylate of soda and similar drugs rather hasten death than otherwise. The same fault, it was true, could not be found with quinine, and for that reason he preferred it as an antipyretic. In some diseases it was best to have a high temperature; but when it got too high, he gave plenty of water to drink and had his patient frequently sponged.

DR. TAYLOR thought that the statistics of the London fever hospitals pretty conclusively prove that a large percentage of cures of rheumatism had been effected since the introduction of salicylic acid.

DR. J. B. HAMILTON said it was of primary importance to ascertain the cause of the fever. If it were due to increased tissue changes, it would be well to retard such changes. The experiments with antipyrin had not been carried on long enough to enable us to estimate its true value. He thought it hardly fair to call it a patent medicine, though its process of manufacture had been patented.

DR. HAGNER thought we should not use such violent remedies of whose secondary effects we know so little. To get the temperature down should not be the prime mover of our treatment. We did not endeavor to get the eruption of scarlet fever off the skin when in the natural course of the disease it should be present.

DR. TAYLOR asked if Dr. Hagner did not endeavor to check the diarrhœa of typhoid fever?

DR. S. C. BUSEY said he was the first, perhaps, to use antipyrin in this city. He had intended using it in the case of a child, but was unable to get any of the drug until too late. The patient died. The next case was one of erysipelas. The man's face and scalp were invaded by the disease. He was a steady drinker, though perhaps he would not be called a drunkard. Despite quinine his fever rose higher and higher until it reached 105° F. He was thought to be dying, and was in fact comatose. It was impossible to arouse him. Sixty grains of antipyrin, in three powders, given at intervals of two hours, reduced the temperature to 99° F., markedly decreased the pulse rate, and the man became conscious. He gave him fifteen-grain doses the next day, and continued the use of the drug for several days. The fever never ascended and the patient got well.

The next case was one of scarlet fever. The patient had a temperature of 104°, and convulsions supervened. He gave antipyrin, and later added bromide of potassium. The temperature descended to 102°, but the next morning it ascended to 104°, and the patient died. He had used the drug in other cases with varying success. He had found the depression to last from three to twelve hours. He had not, however, given the drug in full doses. He would not hesitate to use it in some cases of hyperpyrexia. He was sorry to hear Dr. Hagner say that every high fever was normal, that he feared to use a drug lest it might intercept its course. There are but few drugs, perhaps, whose use is unattended by danger. He thought the antipyretic treatment of fevers was generally conceded to be proper. A very large experience over the whole world tended to show the value of this method of treating fevers. By doing so, complications and other dangers were lessened. In croupous and catarrhal pneumonia fever is a considerable element of danger. In the exanthematic the fever range is due to the amount of poison. Would anybody tell him that a difference of only a half degree between the high maximum and the high minimum of a typhoid fever curve was beneficial? Fever is the factor which exhausts the heart. To its influence are due the pathological changes in the muscular fibres. Constitutions vary as to their susceptibilities to fever. One patient will stand a temperature of 105° as well as another will a temperature of 102°. Shall we let one as well as the other run its course? Shall we, through fear, permit parenchymatous changes to occur? Dr. Hagner says he prefers the use of cold water. Experience teaches that the cold bath is more dangerous than therapeutic remedies. Hæmorrhage in typhoid fever is more apt to occur after a cold bath. It is better to control the faculty of heat production than to rapidly dissipate it. It is for that reason Dr. Hagner considers quinine the safest drug. Antipyrin seems to dissipate heat. Such, indeed, is the theory of heat reduction by diaphoresis.

DR. HAGNER said from the remarks of the last speaker anybody would suppose that he, Dr. Hagner, recommended the elevation of temperature, or at least the application of heat, in the treatment of fever. He reiterated his former statement that we have no right to use new remedies without knowing exactly their action on the heart. He had seen a child nearly killed by salicylate of soda. We do injury by using violent remedies. He contended that certain diseases have a natural high type.

DR. KING said there was no doubt that many diseases have a natural course. Among the phenomena of fever is thirst which calls for cool water. This should be given *ad libitum*, even if emesis is produced; for it is better to use nature's remedies than poisons. But all natural processes are sometimes apt to get beyond the control of nature. If enough cool water, air, etc., could be procured, we would rarely need other remedies. It is right to let nature alone whilst the disease keeps within limits; but wrong

not to check disease by therapeutic means when natural remedies are insufficient.

Dr. Acker had sought to lower the temperature with antipyrin; but not to bring it to a normal point. He stated that rheumatism had been treated by this drug with happy effects without subsequent heart complications. He had used antipyrin in the treatment of typhoid fever, and thought it had not affected the heart. He had not found the pulse reduced, either in frequency or force.

Dr. W. W. Johnston thought there were two important questions embraced in Dr. Hagner's statement, one as to the natural processes of disease, the other as to the use of new remedies. When we undertake to treat symptoms we may do harm. For example, before the use of the clinical thermometer the pulse was most carefully watched, and it was a prevalent idea that in high fever the force and rate of the pulse must be reduced. For that reason veratrum viride was given in pneumonia. Such a method of treatment is now abandoned, for it is believed that to sustain life it is necessary to have a strong and rapid pulse in order to drive the blood through the lungs of a man suffering from pneumonia. He then related a fatal case in point, which he had seen in consultation, in which veratrum viride had been given, where the autopsy found a strong pulse to have been necessary and veratrum viride worse than useless. As to Dr. Hagner's statement that fever is a necessary element of some diseases, it is stated in Pepper's "System of Medicine," on what authority Dr. Johnston did not know, that a high temperature may be necessary to destroy the germs. The patient, however, may be destroyed at the same time. The prevalent theory now is to bring down temperature. Drugs which affect the heat centre are at times useless, for heat is caused by other reasons. In typhoid fever, whilst the intestinal catarrh continues, these antipyretics will be local irritants. As to the use of new remedies, it may be unwise and dangerous to prescribe them until their true value be known. He had had a very disagreeable experience with jaborandi. In a certain case of scarlet fever he desired to use a drug which would cause perspiration. Jaborandi was given, but so great a secretion was excited from the fauces that the patient literally died of suffocation. Antipyrin causes salivation in the dog, hence he would hesitate to use it in scarlet fever. He thought the giving of a daily dose of quinine in typhoid fever to prevent the evening rise, may involve error. He did not wish to be understood as speaking against antipyretic treatment.

Dr. Fry thought the question under consideration had two aspects. We must first determine whether we have a sthenic or asthenic disease to treat. It would be injudicious to choose aconite or veratrum viride to reduce the pulse-rate when we need digitalis. And so it may be dangerous, in fevers having an asthenic type, to use an antipyretic which has a sedative effect on the action of the heart. In alcohol we possess an agent which supports the action of the heart while, by diminishing tissue waste, it reduces temperature.

Dr. Adams in closing the debate, said antipyrin is as well known as any other drug which is on trial. He judged of the effects of temperature by the cerebral symptoms, and such symptoms would influence him in the use of antipyretics. He would not be afraid to use antipyrine in scarlet fever with a high temperature. He did not believe the drug had any effect on the pathological processes.

Stated Meeting, October 28, 1885.

The President, W. W. Johnston, M.D., in the Chair.

Dr. J. Taber Johnson presented

UTERUS AND TUMOR REMOVED BY SUPRA-VAGINAL HYSTERECTOMY.

Mrs. W., aged 35, white, married, the mother of one child 8 years old, was brought to my office in June last by Dr. Walter, who gave me the following history of her case:

In November, 1884, she noticed an enlargement in her right side, and discussed with her mother the probabilities of pregnancy. She had too frequent and profuse menses, however, and the feeling gradually grew upon her that the growth in her abdomen was a tumor. Her health continued very good. She suffered no inconvenience from the growing tumor except from its weight and size. There was a noticeable interference with the functions of the bladder and rectum, but no more than had occurred during her pregnancy eight years ago. In April or May she consulted Dr. Walter, who, under the suggestion that she might be pregnant, declined to use the sound, and as her health was not suffering, advised only symptoms should be treated, and that time would prove whether she was with child or not.

Dr. Walter brought her to my office on the 27th of June, when I diagnosticated an ovarian tumor, with fluid so thick that fluctuation was difficult or impossible to detect, and suggested operation at once, or as soon as the hot weather should be passed. This was readily agreed to, and the first week in October appointed for the removal of the tumor. I made several examinations in the meantime, and believed the tumor to be cystic from its general feel, but could never get any fluctuation. I suggested that the fluid might be colloid, in its etymological sense. I had no thought of malignancy, the patient being robust, of good color, good appetite, and feeling perfectly well. She had not lost flesh, and had no cachexia.

During the meeting of the American Gynecological Society I requested one of its distinguished members, who has performed and witnessed hundreds of abdominal sections, to examine Mrs. W. with me. He kindly did so, and expressed a very positive opinion that the tumor was a solid fibroid; and as it was rapidly growing, that the proper operation was the removal of the uterine appendages, with the hope that the tumor would stop growing and soon disappear.

This change of plan was explained to the patient and her husband, and October 7 fixed for the opera-

tion. The lady was admitted to a private room in Providence Hospital on the 5th, and the abdomen was opened on the morning of the 7th in the presence of Drs. Bromwell, Walter, Cutts, and the resident physician, Dr. Hickling.

When the abdomen was opened, instead of a solid fibroid I found a tense cyst, which was free from adhesions as far as could be ascertained with the finger or a large mole sound passed freely in all directions over the anterior surface of the tumor. The tumor was tapped and about eight pounds of clear amber-colored fluid withdrawn. Traction was made on the cyst, but it would not come. Upon passing in my hand after enlarging the opening from the umbilicus to the pubic, it became apparent that the tumor was attached posteriorily over its entire surface.

The separation of these very numerous and powerful adhesions occupied more than an hour. They were so strong that it required nearly my entire strength to break them and lift the tumor out of its bed and to turn it out of the abdomen. The difficulty seemed so great that at one time I thought of enlarging the opening, putting in a drainage tube, and stitching its edges to the abdominal incision; with further efforts, however, I was able to turn out the entire tumor. It was then found that the attachments to the uterus were so intimate that they could not be separated without producing great hæmorrhage, and the removal of the uterus was finally determined upon.

The clamp was then applied at the internal os, and the uterus and tumor were cut away with the thermo-cautery knife. The stump was secured in the lower angle of the wound, and the incision in the abdominal wall closed with eight silk sutures; after clearing out the abdominal and pelvic cavities a drainage tube was put in above the pedicle. The usual dressing was applied, and the patient put to bed after being on the table two hours and twenty minutes. I feared the lady would not live twenty-four hours, and so informed her husband.

She, however, had a good night, and has continued to do well from that day to this. Her highest pulse was 108, and temperature 101°, and that only for one day. Her pulse has not been above 80 for two weeks, and her temperature has not been more than one degree above normal during that time. The drainage tube permitted the removal of an ounce of bloody serum the first day or two. The quantity grew less and less until on the seventh day none could be drawn up, and it was removed. The pedicle and clamp came away on the fourteenth day, since which time the improvement has been rapid, and now, three weeks from the operation, the patient is sitting up in bed and eating a liberal diet. She looks and feels well, She cannot use the bed-pan, and now gets up and sits upon a commode by the side of the bed.

From the appearance of the cyst and its contents I feared that there was a colloid degeneration of the tumor, and therefore took it to the Army Medical Museum for examination; and I regret that I cannot present a better outlook for the future of the brave lady who has been through such a trying ordeal.

The following is the report of the microscopist of the Army Medical Museum:

WAR DEPARTMENT, SURGEON-GENERAL'S OFFICE,
ARMY MEDICAL MUSEUM,
WASHINGTON, D. C., Oct. 27th, 1885.

J. TABOR JOHNSON, M. D.

Dear Doctor:—The abdominal tumor sent here for examination proves to be a cystic adeno-carcinoma of the ovary; the diameter of the cysts ranges from 1-200 to 1-20 inch, and they are lined with columnar epithelium, which is ciliated in most of the cysts; they are filled with degenerated mucoid tissue, which has scattered in it large epithelial cells. Besides the cystic formation, there is a decided cancerous infiltration which occurs in patches, and has the appearance of a cylindrical epithelioma. The uterus is also infiltrated with the carcinoma, but has not undergone cystic degeneration.

Respectfully, W. M. GRAY.

While a reference to the statistics of supra-vaginal hysterectomy is not in place in a report accompanying a pathological specimen, still a few words on this subject may be pardoned. The impression prevails, I think, that this is a very fatal operation when performed, as it usually is, for the removal of uterine fibroids, and yet Keith has recently reported thirty-eight cases of the removal of the uterus above the internal os, along with fibroid tumors—the average weight of which was fourteen pounds—with only three deaths, or a mortality of about eight per cent. In the last edition of his book, Sir Spencer Wells gives the results after hysterectomy in thirty-nine operations with twenty-nine deaths. In Bigelow's tables, which were supposed to place conveniently on record all published cases up to the date of his paper, there were 359 operations with 227 recoveries and 132 deaths. These operations were done in all parts of the world, and in many cases in series of twos and threes by inexperienced operators, and hence this great mortality.

It would seem that the greatest success is attained by those who have had a large experience in ovariotomy. Thus Keith remarks that he trembles to think what would have been the fate of the women he operated on had it not been for the experience in abdominal surgery gained in the performance of ovariotomy. Knowsly Thornton gives similar testimony. In 1882 Thornton reported twenty-five cases of removal of uterine tumor, with nine deaths. In 1883 he read a paper in Liverpool on this subject in which he reported six additional operations with only one death. Within a few weeks Mr. Thornton has sent me another paper in which he reports thirty-eight new cases of supra-vaginal hysterectomy with only two deaths. Keith says that Bantock is by far the most successful of all the London operators, and his numbers are the largest.

Lawson Tait, Schroeder, and Hegar have also had wonderful results in this operation when compared with earlier experience. For the relief of the ordinary uterine myoma oöphorectomy, or Tait's operation, offers the greatest safety and best results. Tait recently reports fifty-eight cases of Tait's operation during the last year for myoma, with success in every case, and adding the previous year's experience of fifty cases, makes a a series of 108 oöphorectomies with but two deaths. There are certain cases, however, which demand surgical relief, which can

only be obtained by supra-vaginal hysterectomy, and it is a satisfaction to see the statistics of this very formidable operation improving.

Dr. Johnson also presented a

UNILOCULAR CYST OF THE OVARY.

This is a case of simple unilocular ovarian cyst which was removed last Thursday morning from a lady in Providence Hospital. There is little of interest connected with it, except that there were firm and dangerous adhesions to the vermiform appendix and to the intestine just below it. She and her husband both inform me that she was not long ago under the care of a gynecologist who assured them positively, both verbally and by letter, that there was nothing the matter except an unusual deposit of fat. The cyst and contents weighed just twelve pounds.

The lady, Mrs. P., 23 years of age, is the mother of two children, the youngest being 4 years old. Had a miscarriage three years ago, since which time she has been slowly increasing in size. She came to me from Fall's Church, Va. Drs. Lincoln and Busey agreed with my diagnosis, and with me recommended immediate operation. I sent this lady to Providence Hospital on Monday week, and operated on the following Thursday morning, in the presence and with the assistance of Drs. Hamilton, Cutts, Cuthbert, and the resident physician. The patient rallied well and has not had a symptom of any kind. Her highest temperature has been 100 and her highest pulse 92. She has had no pain and has taken no medicine except one suppository of 10 grs. of quinia and ¼ gr. morphia just after being placed in bed—and that was unnecessary. She is now in her seventh day.

FOREIGN CORRESPONDENCE.

LETTER FROM PARIS.

(FROM OUR OWN CORRESPONDENT.)

Lateral Deviation of the Phalanges of the Index Fingers—The Action of Alcohol, Pepsin, and Alkalies on Digestion—Inoculability of Varicella.

A curious example of teratology was recently brought to the notice of the Academy of Medicine in a family consisting of a mother and three children, who were all four the subjects of the same malformation, viz: lateral deviation of the phalanges of both index fingers. It would appear that such another example of this deformity has never been recorded, and of course some explanation was looked for. The deformity was evidently hereditary, as the subjects had not been injured, nor are they rickety. An explanation was proffered by the mother, who stated that her mother's mind was frequently impressed, during her pregnancy, with the form of a lobster, the claws of which offer some analogy with her deformed fingers and those of her children. Moreover, the mother had suffered great anxiety lest her offspring should be born with the same deformity; this idea preyed so much on her mind that she declared that if she had another child with the same deformity she would commit suicide.

M. Guérin considered this malformation to be purely articular, and believed that by dividing the lateral ligaments, which appeared to him to be the immediate cause of the deformity, the fingers could be straightened. M. Trélat, however, does not consider the deformity as being due to an articular lesion, but thinks that it is of an osseous nature, so that M. Guérin's remedy would be of no avail. Moreover, the deformity being manifestly hereditary, it would be useless to perform any operation in view of overcoming its transmissibility, as such deformities are of the nature observed in some of the lower animals, and which constitute fixed types among them; as is the case with dogs with crooked legs and tails. But when the deformity is accidental or artificial it is not transmissible.

After a communication made by M. Vigier at the Société de Thérapeutique on the action of alcohol, pepsine and alkalies on digestion, a debate took place, the conclusions of which may be summed up thus; 1. The ingestion of a small dose of alcohol increases the acidity of the gastric juice, and, as a consequence, may assist digestion in subjects whose gastric juice may be deficient of acidity, and becomes injurious in the opposite condition. 2. Care should be taken not to associate the bicarbonate of soda or of magnesia in any digestive powder containing pepsine. Dr. Dujardin-Beaumetz remarked that alkalies administered in strong doses (5 to 6 grammes) destroy the gastric juice, as was shown by M. Richet. Consequently, the physician should avoid prescribing mineral waters containing that quantity of the bicarbonate of soda, as in that case they can only produce bad results as far as the digestion is concerned.

At a recent meeting of the Société Médicale des Hôpitaux, a debate took place on the inoculability or non-inoculability of varicella. Dr. Dumontpallier, after a long argument, came to the following conclusions: 1. Varicella is a specific malady distinct from variola and vaccina. 2. Varicella is a contagious malady, but not inoculable. A. B.

DOMESTIC CORRESPONDENCE

LETTER FROM NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Progress in Bright's Disease—Electricity in Gynecology—Relations of Physiology to Medicine—The State Medical Association; Address in Physiology; Address in Pathology; Election of Officers; the Library; Treatment of Spondylitis.

The last meeting of the New York County Medical Association, which was held at the Murray Hill Hotel on the eve of the meeting of the State Association, was one of great interest. On this occasion Professor Austin Flint read one of those characteristically clear and comprehensive papers for which he is so noted, expressed in the terse and lucid diction of which he is so complete a master. His subject was "Elements of Prognosis in Bright's Disease," and, as might be supposed from his extended and ripe experience, it was one on which he could speak with

authority. Having referred to the prevalent notion that an individual with Bright's disease was in the situation of a criminal condemned to death, and even in a worse predicament, from the fact that there was always a possibility of the latter securing a pardon or reprieve, he went on to speak of the circumstances which in many instances would be likely to modify the prognosis. Acute nephritis, he said, was not, as a rule, followed by the chronic form of the disease, nor characterized by any renal lesion; and the same was true of the subacute nephritis, such as often follows scarlatina, for instance. It was to be remembered, also, that an acute, diffuse tubular or desquamative nephritis might be met with as an intercurrent affection in the course of chronic Bright's disease. Under such circumstances a problem was presented which could not at once be definitely settled, since we could not be certain whether the grave symptoms noted were connected with the chronic trouble or whether they were significant of an acute attack of nephritis which would soon subside, and leave the patient in the same general condition as before. It was to be noted, however, that when an attack of the latter kind did occur, it was very apt to leave the patient with a tendency to recurrent trouble of similar character.

In chronic Bright's disease the affection might remain latent for a long time. In order that the prognosis might be a comparatively favorable one, when it had declared itself, it was necessary that the kidneys should not be damaged beyond a certain point, and that the important organs of the body other than the kidneys should be capable of satisfactorily performing their functions, while the laws of health in general were carefully observed. If these conditions were maintained, even though the kidneys were damaged to the extent of one-half, the patient might continue to live in a fair state of health. Chronic Bright's disease might exist, without discomfort to the patient, for years, and then at length the pathological process in the kidneys involve the organs to such an extent that they could no longer perform their functions; or, the accessory conditions might become sufficiently changed to give rise to serious trouble. The object of treatment, therefore, was to prevent further advance of the disease in the kidneys and to maintain favorable accessory conditions. In view of these facts, it could be readily seen how important it was to make an early diagnosis. The diagnosis made, the essential point was to see that a sufficient elimination of excrementitious products was carried out by the kidneys. It was very easy to determine whether the elimination was sufficient or not by simply ascertaining the quantity of urine passed in the twenty-four hours, and testing the specific gravity with the urniometer. If it was found that there was renal adequacy, the indication for diuretics, sudorifics, and hydragogue cathartics was not present, and they would only do harm.

The diminution of excrementitious eliminations was not a necessary indication of danger from uræmia, because vicarious elimination might take place and tolerance thus be established. The prognosis of uræmic coma in chronic Bright's disease was naturally grave; but at the same time patients not infrequently recovered from it. It might possibly be due to an intercurrent attack of nephritis, or to the fact that tolerance was not established in the system. When there was pulmonary œdema and dyspnœa, there was a chance of the patient's recovery; but if there were present what is known as renal asthma (which is not due to any condition of the lungs whatever, but in all probability to the effect of a poison upon the nerve centres), it was to be regarded as of fatal import.

At the meeting of the Academy of Medicine on November 5, Dr. Paul F. Mundé read a practical paper on "Electricity as a Therapeutic Agent in Gynecology," the object of which, he said, was to popularize, so far as he was able, this method of treatment in the department of medicine in question. In the introductory part of it he referred to the following points as of importance to remember in this special application of electricity:

1. The galvanic current is far more generally useful than the faradic, which, as a rule, has a stimulating effect, while the galvanic acts as a sedative.

2. A mild, steady current will answer every purpose better than a powerful interrupted one. The faradic current, on the other hand, is useful in proportion to its strength.

3. Whenever the constant current causes pain, it is doing harm.

4. It is of little consequence which pole is placed within the body, provided care be taken that the current is not too strong. There is, however, one marked exception: In cases in which there is circumscribed pain, the positive pole is the one to be placed near the painful point.

5. It is safest to begin with a very weak current, and gradually increase its strength to any desired point.

6. When internal electrolization is to be employed, it is always best to introduce the internal pole upon closing the connection, on account of the sensitiveness of the external parts.

7. To be of any service, it is necessary that the treatment should be continued for a long time. As a rule it is quite useless to make applications less frequently than twice a week, and in many cases they should be made every other day. The treatment should last for from three to six months.

8. The results of faradization in chronic affections are less favorable than those of galvanism; but, while relief from pain and an amelioration of the general condition is very often obtained by this means, a complete cure is usually not to be looked for.

Dr. Mundé then spoke of a number of conditions in which he had employed electricity with considerable success. In speaking of its use in subinvolution, he said that when the case was of recent date and attended with menorrhagia, the faradic current was indicated; but afterwards the galvanic was the one to be used, although it was not advisable to introduce the electrode inside the uterus. In speaking of chronic inflammation of the ovaries and Fallopian tubes, he said the only *cure* was salpingo-oöphorec-

tomy. In Tait's hands this had proved an operation comparatively free from risk, but no other operator had met with the same extraordinary success. In addition to the danger under ordinary circumstances, however, there was a grave objection to subjecting young married women to an operation which deprives them of all hopes of offspring, especially as there was a possibility of pregnancy occurring. The radical operation should be deferred, therefore, until all other measures had failed to give any relief, except in those cases in which imminent danger to the patient calls for its prompt performance. He had seen very great benefit derived from paliative treatment, and the use of electricity was often of important service in supplementing other local measures.

In speaking of the treatment of uterine fibroids by electrylosis, he referred to a case of Dr. Fowler, of Brooklyn, which he saw in consultation, and which was afterwards reported cured by this method. Dr. Fowler was present at the Academy, and in the discussion which followed the reading of the paper he related the details of this case, and also reported two or three others which had been cured by the treatment.

The conclusions which Dr. Mundé gave at the end of his paper were somewhat as follows:

1. Electricity is a valuable agent in gynecology, and one which deserves to be much more frequently resorted to than is now the case.

2. Its application in gynecological practice does not require special skill in the use of electricity.

3. The remedy, if properly used, cannot do harm.

4. It is of especial service in chronic conditions, and no pain is caused if the galvanic current is employed.

5. The faradic current is indicated in deficient development and want of tone in the sexual organs.

6. The galvanic current is to be used for the purpose of promoting absorption of adventitious products and allay pain.

7. This method of treatment requires perseverance and the exercise of much patience.

8. It is contra-indicated in acute and sub-acute inflammatory conditions.

9. The pathological conditions in which electricity proves useful are those in which other treatment often fails, or cannot be borne by the patient.

10. In organic diseases a permanent cure or a restoration of the diseased organs to perfect health cannot be expected; but very marked relief, and that without danger, may often be afforded by means of electricity.

At the recent meeting of the State Medical Association, the Address in Physiology, entitled "Some of the Relations of Physiology to the Practice of Medicine," was delivered by Prof. A. Flint, Jr. A considerable portion of it was devoted to the bearing of the examination of the heart in health on that of the heart in disease, and the importance of an accurate knowledge of cardiac physiology in judging of the pathological condition of this organ. When, he said, a student had fully mastered the physiology of the heart, the recognition of abnormal sounds was easy; but without this thorough knowledge, the whole matter was a sealed book. Indigestion and dyspepsia in their various forms constituted a class of affections which it was not easy to treat intelligently; and the more extensive the physician's knowledge of the process of digestion in all its details, the more successful would be his practice in this field. Having referred to the benefit to medical science which physiology had conferred in the matter of localization in the encephalon and the discovery of the sugar-making function of the liver, he went on to speak of the practical bearing of the knowledge of heat-production in the animal economy for which we were indebted to the physiologist. Now it was the custom to feed fevers in order to supply the excessive demand for heat-production, and thus effect the conservation of the vital forces. This by no means increased the body-temperature, but, on the other hand, actually reduced it. Alcohol was, therefore, of the highest possible advantage in appropriate cases, and one ounce of good French brandy represented a value of no less than thirty-four heat-units. Under such circumstances it was undoubtedly consumed at once in the system, and hence might be given in large quantities without any injurious consequences, when the same amount given in health would pass to a large extent into the blood, and produce intoxication.

He then spoke of the use of the hydrocarbons in phthisis, and of the abnormally low temperature met with in diabetes; after which he touched upon the subject of vaccination, the discovery of which Jenner had described as distinctly physiological. The conclusion of the address was devoted to some consideration of the modern application to pathological investigation of the methods which had long been practised in physiological research, and which had led to the greatest discovery in pathology since that of vaccination; Koch's demonstration of the bacillus tuberculosis having opened up a field which was illimitable in extent. Henceforth physiology and pathology would go hand in hand, and the ideal pathologist would be profoundly versed in physiology no less than the ideal physiologist would be profoundly versed in pathology.

The Address in Pathology was delivered by Prof. Edward G. Janeway, who gave a *résumé* of the latest advances in this department, and in speaking of the growing interest in the subject of micro-organisms which was now manifested by the profession in this country, made a strong plea for the desirability of admitting scientific books and apparatus into the United States free of duty. Most of the young men who were devoting themselves to pathological research here were poor, and he thought it disgraceful that it should be necessary to pay for a microscope in New York just what the same instrument would cost in Germany. Was it not time, he asked, that some one was memorializing Congress on this subject?

The officers of the Association elected for the ensuing year were as follows: President, Dr. E. M. Moore, of the Fourth District; Vice-Presidents, Drs. Wm. Gillis, First District; H. C. Van Zandt, Second District; Frederick Hyde, Third District; and D. Guernsey, Fifth District; Recording Secretary, Dr. Caleb Green, of Homer, Cortland County; Corres-

ponding and Statistical Secretary, Dr. E. D. Ferguson, of Troy; Treasurer, Dr. J. H. Hinton, of New York; New Members of the Council, Drs. E. M. Lyon, 1st District; I. H. Abell, 2d District; T. W. Ross, 3d; S. T. Clark, 4th, and E. S. F. Arnold, 5th District.

Dr. J. W. S. Gouley, of the Committee on Library, reported that there were now in the library, which occupies a commodious chamber in the Carnegie Laboratory building, no less than 3,450 volumes and medical journals, and that it contained many rare and valuable works and complete sets of many important journals. Much praise was due to Dr. E. F. F. Arnold for his self-denying labor in arranging and cataloguing the collection. At the last session of the Association, the Corresponding Secretary announced that next year the work of the annual meeting would be so arranged as not to occupy more than three days, and that at least one evening of the session would be left entirely free.

The meeting was brought to a successful close by a most attractive clinical lecture, at the Carnegie Laboratory, by Prof. Lewis A. Sayre, on the "Treatment of Spondylitis or Caries of the Spine by partial suspension and the plaster-of-Paris jacket, and the Treatment of Rotary Lateral Curvature by Gymnastics and partial Suspension, and the Plaster-of-Paris Corset." The reason for giving such a demonstration at this late date was, he said, that although the matter had been repeatedly brought to the attention of the profession, it was still evident that the practical application of the methods which he had so long inculcated was still very imperfectly understood by the great mass of practitioners. These methods had received the cordial approval of the highest authorities in orthopædic surgery in every civilized nation in the world, and yet one could read in the twentieth annual report of a large public institution in the city of New York especially devoted, to a large extent, to the treatment of the class of deformities involved, the statement that "the use of extension for disease of the joints or the application of the plaster-of-Paris jacket was never allowed in the hospital." Though the individual opinion of the medical man in charge of this institution might not be of much consequence, it became a serious matter when this opinion became endorsed (as it was by their names appearing on the consulting staff of the hospital) by some of the most distinguished surgeons in the city or the country. Again, he said, scarcely a day passed but what some patient was brought to him from a distance, who had been suffering the greatest agony from the defective mechanical devices which had been employed in the treatment of his deformity. Yet these were almost invariably immediately relieved when a proper dressing was applied in the case, and great expense, time and trouble might have been saved if the patient's physician at home had only been taught how to successfully deal with such cases. The methods of treatment referred to in the title were fully explained and practically demonstrated, both in Potts' disease and lateral curvature, the objections which had been raised to them in certain quarters were shown to be without weight, and a large number of striking cases were exhibited by way of illustration. P. B. P.

BOOK REVIEWS.

A SYSTEM OF PRACTICAL MEDICINE, by American Authors. Edited by WILLIAM PEPPER, M.D., LL.D., Assisted by LOUIS STARR, M.D., etc. Vol. III. Diseases of the Respiratory, Circulatory, and Hæmatopoietic Systems. 8vo., pp. 1032. Philadelphia: Lea Brothers & Co. 1885.

The third volume of this great work, which attained a merited popularity immediately on the issue of the first volume, is in no way inferior to its predecessors. It contains forty-seven articles, by twenty-seven authors. The volume opens with an article on "Laryngoscopy and Rhinoscopy," by Carl Seiler, M.D, which occupies over twenty pages. This is followed by Dr. Harrison Allen's article on "Diseases of the Nasal Passages." Dr. Hosmer A. Johnson contributes the paper on "Neuroses of the Larynx;" which is followed by two papers from the pen of Dr. A. Jacobi: "Acute Catarrhal Laryngitis," and "Pseudo-Membranous Laryngitis." Dr. Elsberg is the author of the articles on diseases of the larynx and trachea. Dr. Lefferts devotes nine pages to a consideration of tracheotomy. Dr. N. S. Davis writes of the "Diseases of the Bronchi," in twenty pages. The two articles on "Bronchial Asthma" and "Hay Asthma" are by W. H. Geddings, M.D., and the four following, on "Dilatation of the Bronchial Tubes," "Emphysema," "Collapse of the Lung," and "Congestion and Œdema of the Lungs," are by Dr. Samuel C. Chew. Dr. William Carson is the author of the four papers on "Hæmoptysis," "Pulmonary Apoplexy," "Abscess of the Lung," and "Gangrene of the Lung." The papers on "Croupous Pneumonia" and "Catarrhal Pneumonia" are respectively by Dr. Alfred Loomis and the Editor, Dr. Pepper. Dr. Beverly Robinson contributes the article on "Pulmonary Embolism," Dr. Austin Flint, Sr., that on "Pulmonary Phthisis," Dr. E. T. Bruen those on "Syphilitic Disease of the Lung," "Pneumonokoniosis," "Cancer of the Lungs," and "Pulmonary Hydatids." The paper on "Acute Miliary Tuberculosis" is by Dr. John S. Lynch, and that on "Diseases of the Pleura" by Dr. Frank Donaldson.

The Diseases of the Circulatory System are treated of in twelve articles, covering 260 pages, as follows: "Diseases of the Substance of the Heart," by William Osler, M.D.; "Endocarditis and Cardiac Valvular Diseases," by Alfred L. Loomis, M.D.; "Cyanosis and Congenital Anomalies of the Heart and Great Vessels," by Dr. Morris Longstreth; "Cardiac Thrombosis," by Dr. Beverly Robinson; "Neuroses of the Heart," by Dr. Flint; "Diseases of the Pericardium," by Dr. Da Costa; "The Operative Treatment of Pericardial Effusions," by Dr. John B. Roberts; "Diseases of the Aorta," by Dr. G. M. Garland; "Diseases of the Coronary, Pulmonary, Superior Mesenteric, Inferior Mesenteric, and Hepatic Arteries, and of the Cœliac Axis," by Dr. Elbridge G. Cutler; "Diseases of the Veins," by Dr. Andrew H. Smith; and "Diseases of the Mediastinum," by Dr. E. T. Bruen.

The remainder of the volume is concerned with

the Diseases of the Blood and of the Hæmatopoietic System, four articles, on "Diseases of the Blood and Blood-Glandular System," by Dr. Osler; "Diseases of the Spleen," by Dr. I. Edmondson Atkinson; "Diseases of the Thyroid Gland," by Dr. D. Hayes Agnew; and "Simple Lymphangitis," by Dr. S. C. Busey.

We must regret that an extended consideration of these papers is impossible in the space at our command. The contributors are so well known, however, that such consideration is by no means necessary. This "System Medicine by American Authors" is a monument to American Medicine.

PRACTICAL THERAPEUTICS: A COMPENDIUM OF SELECTED FORMULÆ AND PRACTICAL HINTS ON THERAPEUTICS. Interleaved, By EDWARD J. BERMINGHAM, A.M., M.D., etc. 8vo., pp. 420. New York: J. R. Bermingham. 1885.

If books of this class could be kept out of the hands of those who use prescriptions as mathematicians use algebraic formulæ, they might be of considerable value. In this book, under the head "Neuralgia," we find seven formulæ. The reader is left to infer the causes of the neuralgia requiring any particular formula; and if a particular case be due to malarial influence he might experiment, successively, with all and fail to relieve his patient. The only prescription for tetanus is a hypodermatic injection of ten drops of a solution of gr. ij of woorari to gtt. c of distilled water, every four or five hours. It would be interesting to know how many cases of tetanus have been cured by this treatment. For the treatment of insomnia Brown-Séquard's old bromide prescription is recommended—nothing else. For whooping-cough we recognize an even dozen old friends—no new ones. For the so-called congestive chill we find two; the first valueless, the second containing too much atropia and too little morphia. We believe the tendency of such books as this to be mischievous. The intelligent practitioner who studies does not need them, and others should not have them.

LECTURES ON THE DIAGNOSIS OF DISEASES OF THE BRAIN. By W. R. GOWERS, M.D. 8 mo., pp. 253. Philadelphia: P. Blakiston, Son & Co. 1885.

These lectures were delivered at University College Hospital, London. They are most excellent. The author discusses briefly and closely the anatomy and physiology of the brain as far as they throw light on the diagnosis of cerebral diseases.

He then takes up the various symptoms of brain disease and discusses their cause and their value in forming a diagnosis. The last lectures in which he considers the "diagnosis of the nature of the lesion;" "the pathological diagnosis of sudden lesions" and of "chronic lesions" are particularly interesting, because they are eminently practical and clear. The book is not a large one. It comprises eighteen lectures, covering less than 240 pages. It is well worth reading by students and general practitioners. The interest of the subject and the clearness and conciseness of the author recommend the book to all.

INTERNATIONAL CONGRESS.

SPECIAL ANNOUNCEMENT.

The Executive Committee of the Ninth International Medical Congress, to be held in the City of Washington, D. C., commencing on the first Monday in September, 1887, having accepted, under Rule 10 of the Committee on Preliminary Organization, the charge of the business of the Congress, hereby give notice to the members of the medical profession that they have been actively engaged upon, and have now nearly completed the arrangements for this meeting; and they anticipate the hearty coöperation of the profession everywhere in developing this great scientific and humanitarian assembly.

By order of the Executive Committee.

HENRY H. SMITH, M.D., Philadelphia,
Chairman of Executive Committee.
NATHAN S. DAVIS, M.D., LL.D.,
Secretary-General of Ninth Int. Med. Congress.

Chicago, Nov. 24, 1885.

CAMDEN COUNTY MEDICAL SOCIETY.

At the semi-annual meeting of the Camden County Medical Society, held November 10, 1885, the following resolutions were unanimously adopted:

Resolved, That this Society approves of the action of the American Medical Association in enlarging the Committee of Arrangements for the Ninth International Medical Congress, in 1887.

Resolved, That the Rules regulating the membership and business of the Congress adopted by the Committee of Arrangements at the meeting in New York, September 3d and 4th, and the transference of the future management of the Congress to an Executive Committee, composed of the President of the Congress, the Secretary-General, the Treasurer, the Chairman of the Finance Committee, and the Presidents of Sections, be considered by this Society sufficient to silence criticism and enlist the sympathies and support of the profession throughout the United States.

Resolved, That the Secretary be instructed to forward copies of these resolutions to the County Medical Societies of New Jersey.

E. B. WOOLSTON, M.D.,
President.
H. GENET TAYLOR, M.D.,
Secretary.

Camden, N. J., Nov. 10, 1885.

ASSOCIATION ITEMS.

INFORMATION OF IMPORTANCE TO ALL MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION.

MEMBERSHIP.—Every one who attends an annual meeting of the Association as a delegate pays at that time five dollars, and thenceforward becomes a Permanent Member. He continues as such as long as he remains in good standing in the body from which he was originally sent as a delegate. As a Perma-

nent Member, he must pay *Five Dollars Annually*, when notified by the Treasurer, whether he attends the meetings of the Association or not. Payment of annual dues entitles him to receive the weekly JOURNAL of the Association for one year.

MEMBERS BY APPLICATION are such as have not become Permanent Members in the manner above indicated, but apply to the Trea urer for membership, forwarding at the same time to him five dollars and the certificate of the President and Secretary of their State or local society, that they are in good standing in such society. They pay five dollars annually thereafter, when notified by the Treasurer. Members by application can join the Association at any time, and they receive regularly the weekly JOURNAL.

WHEN DUES ARE PAYABLE.—The annual dues from Permanent Members are payable to the Treasurer at the time of the annual meeting of the Association, or immediately thereafter. The payment entitles the member to receive the JOURNAL for one year from the following July. Payment for 1885, for example, entitles the member to the JOURNAL from July, 1885, to June, 1886, inclusive.

As some of the members have not yet forwarded to the Treasurer their dues for 1885, they are urgently requested to do so at an early day. Having entered upon another year of membership, they are morally and legally responsible to the Association for the payment of their annual dues, having already received for three months of the new year—1885—the JOURNAL of the Association.

SUBSCRIPTIONS TO THE JOURNAL, from those who are not members of the Association, should be forwarded to the office of publication, 65 Randolph Street, Chicago, and not to the Treasurer; but *all payments of annual dues must be forwarded to the Treasurer, Lock Box 1274, Philadelphia.*

DEATHS.—When a member of the Association, who is in regular receipt of the JOURNAL, dies, his family or other representatives are requested to inform the Treasurer at once of the fact.

PAYMENT OF DUES FOR PREVIOUS YEARS.—As a few members of the Association are still in arrears for payment of dues for 1883 and 1884, they are requested to forward at once to the Treasurer the amounts for which they are indebted to the Association.

TRANSACTIONS OF THE ASSOCIATION.—These annual volumes, thirty-three in number, to 1882 inclusive, may still be obtained, with few exceptions, from the Treasurer, at reduced prices. The Index to these volumes will be forwarded on receipt of *One Dollar*. An opportunity is thus afforded to complete sets of these valuable publications, or to obtain important papers and works which are daily becoming scarce.

RICHARD J. DUNGLISON, M.D., *Treasurer*.
Lock Box 1274, Philadelphia, Pa.

MISCELLANEOUS.

VINDICATION OF THE SECRETARY OF THE MICHIGAN STATE BOARD OF HEALTH.—DR. ARTHUR HAZLEWOOD, chairman of the committee appointed on July 13, 1885, to investigate the office of the Board and the secretary, presented the written report of the committee at the recent meeting of the Board. He and the other two members of the committee had examined the work of the office, the report of the Legislative committee on investigation; and he himself had made an unexpected visit to the office, and devoted some time to a thorough investigation. The report showed how all expenses growing out of the Board were directly authorized by law and were reasonable; and expressed the confidence of the committee in the faithfulness of the secretary of the Board to the public health interests of the State. The report was adopted. The present year has been a particularly trying one for the office of the secretary of the Board. Early in the year, at a time when extra work was needed, he was harrassed by false reports of investigations, and extraordinary demands upon the office have since been continuous, because of the fearful plagues of cholera in Europe, and smallpox in Canada, besides the increasing demands by local Boards of health and others throughout the State, for aid in efforts to control the preventable diseases most destructive in Michigan—diphtheria, scarlet fever, and typhoid fever.

The next regular meeting of the Board will be on the second Tuesday in January, 1886.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM NOVEMBER 21, 1885, TO NOVEMBER 27, 1885.

Maj. Anthony Heger, Surgeon, member of the Army Medical Examining Board now in session in New York City, is relieved from the additional duty of attending surgeon in that city, to take effect when Lt.-Col. Jos. R. Smiths, Surgeon, shall have arrived in New York and entered upon that duty. (S. O. 267, A. G. O., Nov. 19, 1885.)

Capt. Walter Reed, Asst. Surgeon, granted leave of absence for one month, with permission to apply for one month's extension, to take effect about Dec. 1, 1885. (S. O. 115, Dept. Platte, Nov. 18, 1885.)

Capt. Arthur W. Taylor, Asst. Surgeon, granted leave of absence for one month, to take effect Dec. 5, 1885. (S. O. 116, Dept. Platte, Nov. 20, 1885.)

First Lieut. A. R. Chapin, Asst. Surgeon, ordered for temporary duty at Ft. Robinson, Neb. S. O. 115, Dept. Platte, Nov. 18, 1885.)

Lt.-Col. James Simon, U. S. A. (retired), died Nov. 18, 1885, at Baltimore, Md.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY, DURING THE WEEK ENDING NOVEMBER 28, 1885.

R. A. Marmion, Surgeon, detached from Marine Barracks, Washington, D. C., Dec. 7, and wait orders.

A. M. Moore, Surgeon, ordered to Marine Barracks, Washington D. C., Dec. 7, 1885.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE FOR THE WEEK ENDED NOVEMBER 21, 1885.

Yemans, H. W., Passed Asst. Surgeon, Promoted to be Passed Asst. Surgeon from Nov. 1, 1885. Nov. 14, 1885. Reassigned to duty at San Francisco, Cal. Nov. 16, 1885.

McIntosh, W. B., Asst. Surgeon, appointed an Asst. Surgeon, Nov. 14, 1885. Assigned to duty at New Orleans, La. Nov. 16, 1885.